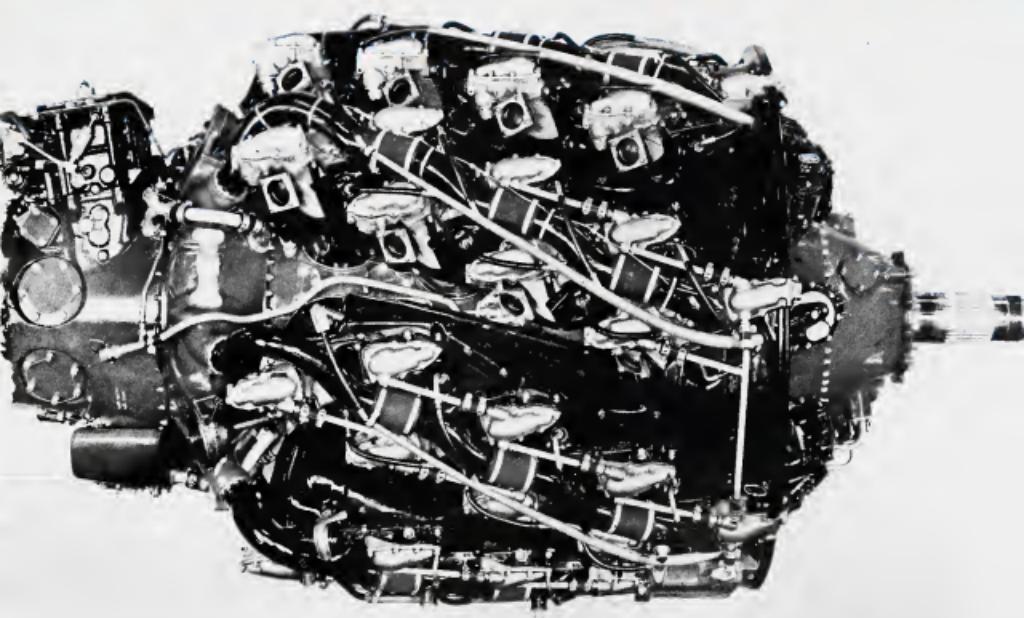


Aviation News

MCGRAW-HILL PUBLISHING COMPANY, INC.

DEC. 3, 1946



Powerhouse—Selected to power five of tomorrow's giant air transports is this Pratt & Whitney Wasp Major, 28-cylinder, four-row radial air-cooled motor which delivers more than 3,650 combat hp. In addition the engine is being used in two of the Navy's crack fighters, two of the Army's largest bombers and at least six other military aircraft not yet announced.

NAA Forum Urges Better Private Flying Policies

"Honest thinking" in development called for by speakers in outlining steps to be followed if personal aviation's potential is to be realized. . . . Page 7

Navy Base Trying Out All Fog Dispersing Methods

FIDO system's cost cut to \$200 per landing; sonic devices, water jets and hot air all are scheduled for tests at Arcata, Calif.; airline interested. . . . Page 12

British Warplane Procurement Is Double That of U. S.

No extensive demobilization set up; 900,000 workers in industry which has orders on hand for more than 10,000 military aircraft. Page 13

Subcontractor to Build Fairchild F-24's in Texas

Robert McCulloch, former manager there for North American, heads new company; parent concern will handle sales. Page 16

Admiral Land Likely to Be Named President of ATA

Rep. Ramspeck elected vice-president; Maritime Commission chairman's resignation reliably reported already at White House. Page 42

Non-Scheduled Transport Curb Seen After CAB Hearing

Board expected to follow examiners' recommendations; operators present their case in unprecedented strength and harmony. Page 41

Combined for the first time



THE NEEDS: A carrier-based combat plane combining the advantages of jet propulsion for peak performance . . . plus piston-engine and propeller power for short take-off and long range.

THE EXPERTS said "It can't be done." But the Navy and Ryan, working together, tackled the problem and solved it...in the first design.

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- * The only jet plane which can operate from aircraft carriers.
- * New high performance—superior maneuverability, speed and altitude over wide range of altitudes.
- * Best combination of double fighter characteristics, each with its relative degree of importance to the others.
- * Tremendous emergency power when both engines are used together.
- * Advantages of two engine airplane in single-engine configuration.
- * A plane which gives pilot combat advantage at all times.

RYAN AERONAUTICAL COMPANY • SAN DIEGO



U. S. NAVY'S NEW JET PLANE

THE AVIATION NEWS

Washington Observer



RECORD FLIGHTS—The record long-distance flight of the Boeing B-29 from Japan to Washington is reported to be only the beginning. The AAF is said to be out to break all existing records possible with American aircraft. The British are work, plus some subsequent and not too quiet comment about the Lockheed Shooting Star, using the AAF high command. The B-29 distance mark will not be the last, since the British are reported readying for London-Australia nonstop. But at least two Americans plan to try any British distance mark. And the jet speed record will be one of the records the AAF will smash.

NO SQUEEZE—Responsible opinion in Washington now is that the U. S. will not use requests from foreign nations for food, clothing and other necessities in return for big payoffs for air rights. That policy, if it is a policy, however, will stop when the relief requested takes the form of plea for financial assistance. When talking money, officials feel the U. S. is justified in asking for commercial rights.

FEW DISPUTES—Most important constraints when rights still must be obtained are France, Russia and England, the latter being the use of surfaces which might be principally involved. Department of Commerce reported last week that U. S.-built surfaces during the war totaled 460, costing \$1,697,000,000, with many of them as one-of-the-way spots which would serve no commercial end.

RUSSIA WILL PLAY—Officials anticipate no immediate difficulty in coming to a freedom of transit agreement with Russia, when it becomes necessary.

Informed explanation of Russia's non-appearance at the international air conference in Chicago is that the Soviet's absence did not indicate lack of interest or willingness to participate, but merely that Russia realized the U. S. and Britain could not agree on basic principles and saw no point in becoming involved in a bilateral argument.

FOREIGN AIRPORTS—Few foreign airports, other than those built by the AAF, will meet American safety requirements, and domestic companies operating in the foreign field probably will have to make large investments in facilities to meet American operating standards. Many of the larger foreign fields do not even meet minimum Chicago Convention standards, and local governments are reported showing little disposition to meet them.

OCCUPATIONAL DEFERMENT—With the war over the Army and Navy are record as having discontinued sponsorship of occupational deferments of workers in plane manufacturing equipment for the services. It probably will be denied, but despite this controversial policy, both services continue from time to time to intervene in behalf of key workers.

MONTHLY PRODUCTION REPORTS—Although it still is in the planning stage, a subcommittee of the Air Coordinating Committee will be set up within a few weeks to make a monthly overall report on aircraft production. Since V-J Day there have been no overall figures available from the Government, except on military craft. It is probable that the Census Bureau will compile the report.



This Northrop Flying Wing jet plane carries its explosives in the wings. (See Page Ten)



**...FOR INTENSIVE COVERAGE OF OUR
SWIFTEST GROWING TRANSPORTATION MARKET**

In the span of less than 20 years a new, major transportation industry has been developed—laying you huge new markets and marketing possibilities. Air transport has taken its place alongside the railroad, marine and automotive industries as one of our great public carriers of people and cargo.

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gram for airport and airway facilities—the transport manufacturing executives and the key men of thousands of manufacturing suppliers to the industry.

Within its first year, Air Transport has become the topographical news of its industry. To the extent that air transport's key men have fully subscribed to its 10,000 paid (A.R.C.) circulation, this is of unusual significance (1) because circulation is carefully confined to airlines men, aircraft and parts manufacturing executives, military and government authorities, and (2) because Air Transport's subscription price is \$3 a year rather than the traditional \$5.

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News at Deadline

Airport Legislation

Prospects for enactment of airport construction legislation before the end of the year appear dim with House and Senate committees making little progress in ironing out the Senate-passed McCarran bill and the House-passed Lee measure. Little was done at the first meeting and the second meeting last week was disbanded because of lack of quorum.

Senator McCarran reiterated his hope for early legislation but there were differences over the methods of financing federal allocations to states and municipalities.

Tipton Resignation

Friends of Stuart G. Tipton, counsel and acting president of Air Transport Association, may be moved from the organization after the fall of the Lee bill, which is understood to have been offered a partition with United Air Lines and may take that or return to private practice.

Research Induced

A resolution adopted by the International Association of Machinists (AIM) calls upon Congress to enact legislation to allow the air forces to proceed with a post-war program embodying full experimental and continuing technological improvement in the interim type aircraft.

The National Grange also recommends sound programs directed toward the advancement of aviation, including adequate research and development.

AA Contract Program

American Airlines is announcing today its entry into non-scheduled contract carrier operations, using C-54s, five of which are available now for the service, with more being added later. Initial contract is with *Newsweek* magazine, effective this Wednesday, AA will fly the magazine's West Coast editions from Dayton, Ohio, to offend distribution on the West Coast simultaneously with other sections of the country.

First load will be 65,000 copies of the magazine, constituting the maximum payload, 16,500 lbs., of the aircraft.



• Sigma-Java, Colonial Airlines president, last week flatly denied an Aviation News story of Nov. 19 that purchase of Caldecott by Eastern Air Lines was in the making.

• Whittling down its backlog of undelivered route applications, CAB shortly will release decisions in two more international cases.

• Industry expert R.P.C. to issue its overall air place disposal this week, covering September, October and November. Monthly reports thereafter are anticipated.

• Election of Joe E. Crossan, veteran Alaska pilot, as president of Northwest Air Lines, Inc., was awarded locally Stock held by Charles H. Bobb, Glendale plane broker, has been bought by four Seattle men—Dallas Donase, lumber dealer; Thomas H. Olin, insurance officer; John Held, meat manufacturer; and Chris Glass, vice president of Seattle Chamber of Commerce. Balance of stock is held by Crossan and Ned West, former Alaskan pilot who bought into the firm in 1944.

• Opening of Midfield Airport, scheduled for Dec. 3, has been postponed indefinitely because of labor disputes.

• United Air Lines has contracted with Northrop for modification of 35 C-47s, work to extend through February.

• National Aerospace Association is studying a plan for rating awards to airports which meet certain standards in cleanliness and good service to customers; a project similar to the "Good Housekeeping Seal of Approval" or the American Automobile Association's approved service station list.

• Naval Air Transport Service now regards the service life of its rapidly operational transports as five years, a contrast to wartime estimates, but similar to the domestic airlines' depreciation policy on old Douglas.

• Navy is attempting to complete its contract with Lockheed for the PV-2, fast twin-engine patrol bomber. This is one of the models which has received extensive modification since Navy Lockheed service center at Burbank, Calif. is not modified by the end of the year are scheduled to be kept off the line. About 100 aircraft to be delivered from Lockheed on the contract.

• A revision in Navy's Marine Mover schedule will reduce the number of monthly deliveries in 1946 to two, with the contract running through June, 1947. November schedule of five will be met.

• Douglas' new Navy dive bomber, the BT2D-L, is expected to be ready for trials shortly, the first plane being reported as completed, with a Pratt & Whitney R-1830 engine.

• Martin's experimental patrol plane for the Navy, the XPBM, is ranking utility program, with initial test flights now scheduled for early spring.

• Navy has about 5,500 long-haul bombers of the Grumman type now in General Motors' engine circuit division—TBM-3—which has gone out of production. Spare replacements will probably be made on this option by cancellation.

• CAA finally is studying a proposal made by the airlines to permit carrying of small mail bags in unaccompanied C-54 military transports.

• Effective Dec. 15 Colonial Airlines will permit passengers to carry as excess 30-lbs. of baggage free if it is sports equipment.

• TWA last week clinched a new transatlantic trans-Atlantic speed record for a Constellation which flew from Gander, Newfoundland, to Kenesaw, Fla., in 6 hours, 35 minutes, averaging 297 mph.

3500 horsepower—plus



Pratt & Whitney Aircraft again leads the way to higher horsepower. The new Wasp Major is the most powerful aircraft engine in production in the world—delivering 3500 horsepower—plus. Already it has been selected to power such air-giants as the Boeing Stratocruiser, Douglas Globemaster, Hughes Hercules, Martin Mars, Republic Rainbow and Consolidated B-36 as well as the F2G Goodyear Corsair and eight Army and Navy aircraft not yet publicly announced.

PRATT & WHITNEY AIRCRAFT

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ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION

VOLUME 6 • NUMBER 19

NAA Conference Brings Demand For Better Private Flying Policies

"Honest thinking" in development urged by speakers in pointing out steps which must be followed if personal aviation's potential is to be realized

By ALEXANDER McSUBILY

Demand for "honest thinking"

in personal aviation development and for more attention to the needs of the non-professional—"justly-want" flyers who may be expected to make up the large majority of future personal aircraft users—arose from the Seafair Hotel in Washington last week where the first annual Conference on Private Flying was held under sponsorship of the National Aerospace Association.

If the aviation industry is to go beyond its present limited distribution of private planes it must make a greater effort to satisfy the potential consumer who has neither the time nor the money to spend in learning to fly today's conveniently controlled aircraft, Elisabeth Gordon, managing editor of House Beautiful, and a amateur pilot with approximately 30 hours of flight, told the conference. Comparing her experience in first soloing an biplane in less than four hours with her later flight instruction in a "moderately controlled" plane, Miss Gordon warned that "the average American woman will not take the time or the money to learn to fly the latter, when there were so many other competing interests which are less demanding."

Costs—"You can get a very nice fair cost for what it costs you to learn to fly, and what American girl isn't going to prefer to get a car first?" she asked.

She believes the fewer number of hours required for simplified control biplane flight instruction and the lower cost will be an important factor in consumer satisfaction. She called for more comfortable planes in which the woman pilot can wear slacks. She re-emphasized the need for private pri-

lot demand for clean airports and adequate restroom facilities with definite attention to making airport users comfortable in pleasant surroundings.

Capitalization—The nineties which private flyers are demanding, must be provided by private capital, in the opinion of Hatch C. Gerstel, senior vice president of the Pratt & Whitney Corp., who spoke at the conference. Gerstel does not expect public funds—

even through the national support program and corresponding state programs—to provide more than a small percentage of the needed facilities which he estimates should eventually total about 30,000 landing areas of various kinds for the private flyer. A solution to financing problems was suggested in the form of an FHA to finance airport hangar, shop and other facilities for the operator.

Asked about the investments which some oil companies are making in airport development, Gerstel replied:

Banks Seized—The banks simply won't play. Some petroleum companies have been willing to back good, sound Americans.

"Any operator unable to get funds has a perfect right to go to his suppliers and secure backing. However, the worst thing industry could do is back them too far, until you have the manufacturers owning all the service businesses. That would be tragic."

Design—William B. Scott, Dearborn investor and engineer, urged the aviation industry to stop building itself and start doing business with itself. He called for more "honest thinking" in the form of assisting out the actual needs of potential plane users, and the tailoring of planes to fit those needs. Visibility, range, and economy must be improved, he argued.

He discussed possibilities of an all-plastic plane, now reported under development and predicted that aircraft engine costs would be cutered to a volume level only when engines were developed which could be used interchangeably in auto and airplanes.

CAA Criticism—The reactionary "Old Guard" in the Civil Aviation Administration came in for some harsh criticism during the conference. James W. Battikha, legal counsel for the United Pilots & Mechanics Association, told the conference the CAA is made up of two divergent groups.

"If the viewpoint on tax were



TWIN MUSTANG'S ARMAMENT:

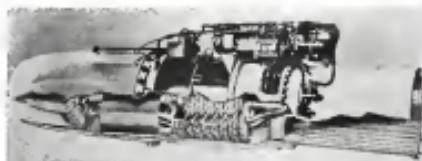
Shown from a special shockie is the center wing section of North American's Twin Mustang, an eight-passenger sportster. The unusual aircraft has a total of 14 forward-firing .50-cal. machine guns. On the outer wing sections the plane packs two 1,000-lb. bombs and ten rockets. A 450-gal. droppable gas tank may be substituted for the machine gun nacelle

reflected all the way down we would have no quarrel with CAA," he declared. He characterized a group within the CAA, below the highest policy-making level, as "hard-boiled, high-handed, insensitive and discourteous," and urged that the highest CAA officials be made mandatory if their personnel "fail to carry out their views are being carried out."

Penalties—Becker charged that the new regulations applying to private pilot flight examiners were being poorly administered and asserted that the practice of filing suit to collect a penalty for alleged violations of Civil Air Regulations was becoming "a mild form of legalized extortion." He urged need for legislation taking this authority from CAA.

Warning that private flying ban must be reduced if the personal plane can achieve mass utility was given by Jerome Lederer, chief engineer, Aero Insurance Underwriters. Lederer predicted private flying deaths would result a total of 280,000 annually in few years, if the pre-war accident curve in aviation continued, as compared with 40,000 motor deaths a year pre-war. He charged private flyers with weakening national defense by not flying for safety, and with being spendthrifts, since their own actions are responsible for the high accident rate that increases the cost of using a plane.

Faults—In 1944, 70 per cent of the needless flying accidents were due to low flying, leaving houses, shooting over populated areas, etc., he said. The pre-war accident rate compares to an increase in commercial flying to point out the errors of such flying practices in the offenders, and to explain sheet them to field managers. He also urged watchfulness about sleepy man-



NAVY'S YANKEE JET:
Closeup view of the Westinghouse Yankee jet engine built for the Navy. This unit, which has a diameter of only 3 inches, and its compact 3-inch diameter "Baby Jet," are the first such power plants of entirely American design.

Certification Step

A plan which eventually is expected to permit 35,000 A & E mechanics to give annual inspections of aircraft engines and aircraft maintenance certificates is being developed by the CAA general inspection division. Paul Young, assistant chief of the division, told the AAA Private Flying Conference in Washington, last week.

Young said the plan should be completed by January 1, 1945 and that it was hoped as many as possible of the mechanics would qualify, thus cutting down delays now encountered in getting inspection certificates of aircraft. Lee Young, who, with Alexander Hayes, the mechanician who would give the inspection, would be designated aircraft maintenance inspectors, and would be appointed by inspection on their need and certain knowledge without examination. Approval would be subject to approval by the regional administrator and the Washington office.

Lease and ground handling of planes.

Lederer called for improvement of personal plane designs, safety-wise, to provide

• Fuel storage accessible without removing cover, so as to insure clean fuel.
• Better visibility for flying and taxiing.

• Redesign of instrument panel and controls so they will, or stuck, and other inferior fittings do not "become a weapon against the pilot in a crash."

Provision—A five-point program which the Indiana is using to promote aviation was outlined

by Clarence F. Cornish, Indiana state aeronautics director. Encouragement of airports in the state has been so successful that the number has increased from 54 in 1944 to 100 now, with 60 other fields now being developed, he reported. The state is expected to be completelyスマッシュ by next summer. An independent proposal is to award a certificate of merit to the airports which meet certain minimum safety qualifications.

The state is setting up two advisory councils, one composed of private flyers, and one of commercial aviation representatives which will represent various sections of the state. Through local organizations responsible to each of these council members, the grass-roots sentiment of the aviation people of Indiana will be referred to the state department in establishing policies and planning.

Solidarity—"Civil aviation has sold its birthright for a federal subsidy," W. L. Jack Nelson, president of Sewell Aviation Corp., Washington, and former secretary of the CAA Private Flying committee, told the conference.

Nelson pointed out that the federal subsidy to light training programs which resulted in a large number of additional students being trained had resulted also in increasing federal restrictions over private flying. He urged the aviation industry to look "to our neighbors in our own communities" rather than the federal government for future financing and development.

Patronage of aviation to establish's proper "groundwork" is proposed, so that the amateur status was blamed by Nelson for such actions as the recent Kentucky "good roads assessment" which he said "penalizes aviation in Kentucky for years to come" by limiting fuel tax expenditures to roads, regardless of their origin.

If sufficient interest in aviation is in the local communities of Kentucky had been developed such a measure could never have succeeded, he declared.

Legislation—Harry Maxell, Air Transport Association state relations manager, reviewed state aviation legislation, reporting that national interest was reflected in the fact that 2,000 aviation bills were presented in state legislatures in 1944-1945 sessions and more than 200 of these were enacted as laws. Many of these were enabling acts to enable local government units to finance air-

ports in their communities.

He urged the importance of an aviation commission as an integral part of each state government, warning of a trend in some states to combine aviation with ground transportation interests to the detriment of aviation.

Airports—Community effort to develop airports and airports based on local need and the financial ability of the community to pay was urged by Eugene V. Fryberg, head of the aviation division, Missouri State Department of Resources and Development. He appealed for elimination of friction between the various factions of aviation, and improved cooperation for the mutual interest of the industry. He described the Missouri program (See *Principles* column).

Aviation Activity In House Stalled

Aviation activities of House Interstate and Foreign Commerce Committee are likely to be stalled until the new Congress meets in January, it was indicated last week by the committee's chairman, Rep. Clarence V. Lee (D., Calif.).

There are two matters Lee is anxious to act on before year's end, however.

Investigation—First, he would like to get Rules Committee clearance and House approval of his resolution authorizing Interstate to make a thorough investigation into transportation, with a view to re-framing over-all national transportation policy and law. Lee said he would like to have authorization for the investigation by the first of next year. He has requested a hearing by Rules on his resolution, but unless this is granted shortly, Lee's absence from Washington will prevent action.

All segments of the transportation industry have submitted voluminous reports in response to his request for views and recommendations for use in the proposed investigation. Although a deadline date of Nov. 15 was set for submission of the reports, the Congressman said they are still welcome. Lee plans to have an investigating staff carefully review these documents, and probably have them published, prior to launching investigative hearings.

CAA Independence—The other

AVIATION NEWS • December 3, 1945



DE HAVILLAND HORNET:

This new long-range fighter is powered by two Rolls-Royce Merlin engines each of 2,000 hp. at take-off, driving its Hispano supercharged four-blade propellers. Top speed exceeds 400 mph. Rate of climb is over 4,000 fpm. from sea level and the plane has an operating radius of around 35,000 ft. With long-range tanks it has a range exceeding 2,500 miles.

matter which Lee would like to clear before Congress adjourns is legislation establishing an Civil Aviation Authority as an independent commission. He predicted, however, that action on the measure might have to go over until next year, and added that it would then have top priority on the committee's agenda. The bill has been drafted, but has not yet been introduced.

Noted Flyers Head Airport Firm

Two of World War II's most famous Marine Corps flyers head a newly organized California corporation, Community Airports Inc., which will sign agreements developing of airports for ownership of personal aircraft.

They are Col. William J. Fox, who was commander of Henderson Field during the critical defense of Guadalcanal, and Maj. Joseph J. Patti, of one time American Legion fame, who was also honored in combat. Fox is president and chairman of the board of the corporation, and Patti is vice-president. Other officers are Raymond D. Ishman, Vernon Calif., real estate broker, director Floyd Walker, Los Angeles, and John S. Johnson, San Francisco and Jack Strode, Los Angeles attorney, director.

Project—Fox said that with a corporate capitalization of \$3,500,000 Community Airports will seek to develop airport lands for maximum utility and service to

NATS Halts Cargo Flights

United Air Transport Service has discontinued cargo flights as unnecessary due to a decrease in the number of schedules since the war ended. NATS planes in training during the war flew such flights for experience before they earned passengers. All NATS flights now are carrying passengers as well as cargo.

Noted Flyers Head Airport Firm

All types of aviation enterprises, and especially will seek in developing continental areas for the construction of personal aircraft centers.

The corporation already has filed with the War Department and RFC notice of its intent to acquire suitable airports and flight strips as rapidly as they are released surplus.

Major Fox is widely known throughout Southern California, and when elected to active duty from the Marine Corps Reserve was chief engineer of the Los Angeles County Regional Planning Commission. He remained in post after the end of the war.

Prior to the war Fox directed preparation of Los Angeles County's first master plan of airports, and at that time pleaded with little success against the conversion of airports to industrial and subdivision properties.



Flying Wing Buzz Bombs—This twin-jet missile was the first Northrop aircraft turned into buzz bomb production for Army testing. It carried its explosive charges in the bays in the wing. This model later was studied in favor of the single-jet JB-1A which carried the explosive outside the wing skin.

Mobile Buzz Bombs Built By Northrop

Flying wing type can be launched in 50 ft. by use of rocket-powered sleds.

Watertight development of buzz bombs by Northrop Aircraft, Inc., has turned that type of guided missile into an implement of mobile warfare, company officials have revealed, and further demonstrated the efficiency of the firm's Flying Wing design.

The first model turned out by Northrop was a twin-jet model with two solid fuel boosters drawing off from a central intake duct. It carried its explosive charge in bomb-like bulges in each wing.

Later Model—Following experiments with this model Northrop switched to a single-jet model which also had the power unit designed as an integral part of the wing (See Page Three). Its 3,795 lb. of explosives were carried in cast magnesium sections inside the wings adjacent to the power section. The savings, Northrop says, are among the largest ever produced.

A model which was capable of getting the bombs into the air from three-cell tracks only 6 ft long.

This made possible the use of portable launching platforms which could be loaded down and transported in large military truck-trailers or used on landing craft in amphibious assaults.

Design—Backbone of each of the redesigned landing sleds is a 16-ft aluminum tube which is 18 inches in diameter and mounted on run-

ners. With the bomb in its cradle four rockets in the sled are fired electrically, giving the craft a speed of 230 mph, when it clears the end of the tracks. Each sled weighs 450 lb. and can be assembled in a few minutes.

With the bomb in its cradle four rockets in the sled are fired electrically, giving the craft a speed of 230 mph, when it clears the end of the tracks. Each sled weighs 450 lb. and can be assembled in a few minutes.

Experimental work on the buzz models began in the summer of 1944 and the full production quota now is being completed. In all, more than 1,000 sleds and a number of the buzz bombs were delivered to the armed forces.

Georgia Supreme Court Hear Gas Tax Case

The Georgia Supreme Court recently heard arguments in the State's effort to collect \$531,000 in gasoline taxes from Eastern Air Lines. Besides seven years' back taxes the state does interest and penalties. The theory is that it is entitled to taxes on all gasoline purchased and delivered in Georgia.

Eastern contends that since the gasoline bought in Georgia was used in interstate commerce, the company was exempted from taxes on it under an attorney general's ruling of a decade ago. Counsel arguing the case for Eastern Air Lines included three attorneys from three Atlanta law firms—Marion Smith, Smythe, Conner and B. D. Murphy.

RFC Sells Plant For \$13,750,000

International Harvester Co. purchases Illinois engine parts plant previously operated by GM.

In the largest transaction of its kind to date, Reconstruction Finance Corp. has sold the engine parts plant at Melrose Park, Ill., operated during the war by General Motors Corp., to International Harvester Co. for \$13,750,000.

The sale has attracted considerable industry attention, not just because of the size of the property involved, but because of the terms and other conditions which apparently influenced the disposal agency's decision.

Machinery—While the plant itself was built at a cost of \$17,384,000, it contains machinery valued at an additional \$44,325,000. International Harvester is not buying any of the machinery, which will be removed from the plant at Melrose Park, separately.

Another factor which influenced the sale is the fact that the company plans to employ some 5,500 people in the production of diesel engines, power units, turbines, etc., and most of these workers will be re-employed locally.

The surplus plant disposal regulation provides that locally-owned engines or companies giving employment to local workers shall be given special consideration.

Equipment—Among the equipment which will be removed and offered for sale by RFC are 55 aircraft motor test blocks which cost approximately \$4,000,000, and 3,200 machine tools.

In trying to dispose of an estimated \$10,000,000 worth of surplus aircraft and parts plants, RFC has received numerous requests on several large factories. Up for sale are two two-engine propeller plants at Indianapolis, which covers about 10 acres and cost \$1,000,000, and at Beech Field, Forrest, which includes nearly 32 acres.

Another on the block is the Wright Aeroplane plant at Wood Ridge, N. J., which covers 1,800,000 square feet and covers 186 acres. Also on the list are two plants formerly operated by United Aircraft at Bridgeport and Stratford, Conn.

Pratt & Whitney Wasp Major To Power Five Giant Transports

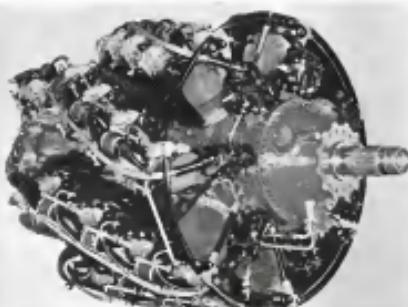
Engineers believe huge motor, expected to be used also in at least six still-secret warplanes, has possibilities beyond its present rating of 3,650 combat hp.

Details of Pratt & Whitney's Wasp Major, which delivers an excess of 3,450 combat hp, have just been disclosed, along with the announcement that this most powerful aircraft engine yet developed and in production, has been selected to power five commercial aircraft which must two-cow engines.

This powerplant is being used in the 108-passenger, four-engined Douglas C-46 Glidercrusher, the 114-passenger, four-engine Boeing Model 377 Stratocruiser, commercial version of the B-30 Superfortress, the 108-passenger commercial version of the Boeing 304 Airplane, the ultra-high-speed 40-passenger four-engined Martin Marsopus airplane, and the experimental Hughes Hercules, the world's largest aircraft, now being assembled at the West Coast.

History—Development of the engine was accelerated and encouraged by experimental and production contracts from both Army and Navy. Less than five years have elapsed since the program was authorized late in 1940. The first engine was run in April, 1941. The Major first powered an airplane in flight in May, 1942 and completed its 150-hour qualification test in December, 1944.

Pratt & Whitney reported that



Leading the World—Most powerful aircraft engine in production is the Pratt & Whitney Wasp Major which is rated at 3,650 combat hp. It is only one inch larger in diameter than the original Wasp which put out 410 hp. back in 1935.

Rescuing from Air

Rescuing from airplanes of large areas of fire-blackened terrain, written national legislation is under way in the House of Representatives, and is understood to be under way in the U.S. Senate. One seed-dusting plane recently began a project covering 16,000 acres in Southwestern Idaho.

Other uses to which aviation facilities have been put by the Forest Service during the fire season include seed-sowing from planes and transportation by fire-fighters to relatively inaccessible fire scenes.

While production of the Wasp Major, which disappeared temporarily with the general termination of war contracts, now is being stepped up to meet current demands, there has been no such interruption of the engine's development program.

Major—Development of the engine was accelerated and encouraged by experimental and production contracts from both Army and Navy. Less than five years have elapsed since the program was authorized late in 1940. The first engine was run in April, 1941. The Major first powered an airplane in flight in May, 1942 and completed its 150-hour qualification test in December, 1944.

Pratt & Whitney reported that

Navy Proving Base Trying Out All Fog Dispersing Systems

FIDO system's cost cut to \$300 per landing; sonic, water jet and hot air methods are scheduled for test at Arcata, Calif., field; airline interested.

By SCHOLET BANGS

Conducting tests of every known fog dispersing system may be expected if the Navy continues the operation of its proving ground at Arcata, Calif., one of the foggiest sites in the nation.

Present indications are that an improved FIDO system, utilizing runways with high-pressure fuel burners, holds greatest promise for fog dispersal at strategically located military air bases where imposition of radio silence might preclude use of conventional landing aids.

► **Cost Cut**—Navy tests at Arcata have resulted in the lowering of FIDO operating costs to as little as \$300 per landing, and the system is reported under investigation by one commercial airline.

A spokesman for the airline suggested that information he had during a visit to the proving ground indicated still greater savings in FIDO costs are possible with improved burners, and with use of instrument approach methods to reduce the degree to which the fog cover must be dispersed.

He pointed out that although the expense per landing might surpass that it becomes less of an obstacle when one considers that "zero-zero" conditions at one key station can disrupt an airline's entire schedule. When the same weather effects several times a fairly expensive fog-dispersal can be employed with a net economy, considering all other revenue fac-

tors, he said.

Under the supervision of Lt. Cmdr. R. L. Chapman, USNR, director of the Navy's Landing Aids Experiment Station at Arcata, plans have been made to extend the testing of other fog dispersing methods, including:

► Some coalition of fog droplets by focusing beams of sound, generated by sirens or other devices, above the upwind end of a runway;

► Pumping jets of water to a height of 100 ft. or more in the form of a water screen in the path of drifting fog;

► Creating a curtain of hot air in the path of drifting fog by blowing pre-heated air vertically from ducts had the length of a runway;

► Freezing into the air droplets such as powdered rooms, which will contain or precipitate fog droplets.

Although fog dispersal experiments have been reported over the past 20 years, no successful results were recorded until the British developed the FIDO system and saved by its use, large numbers of planes which otherwise would have crashed when fog blanketed airports.

► **U. S. Use**—The Navy study of Britain's FIDO results began Sept. 28, 1945, and indications that Navy might launch an all-out northern invasion led to the installation of a FIDO system at Anchorage, where it was operated for the first time



FIDO Barriers. Reduction of high installation costs and maintenance problems are given by this view of a segment of the Marine FIDO barriers at Arcata, Calif. In visibility fog, where costs are of secondary consideration, FIDO has saved many planes which otherwise would have crashed.

Aug. 6, 1946. Subsequently the Landing Aids Section of the Navy Bureau of Aeronautics was organized and experiments began at Anchorage where they were moved to Arcata. During that fall a PB4Y-1 was able to use the field five minutes after FIDO burners had been ignited.

► **Heavy Fog**—At the start of the burn fire covering the airport had a depth of 3,000 ft. and on the runway visibility and ceiling were "non-existent."

Two hours later the fire was started the ceiling had lifted to 1,000 ft. near the center of the runway and visibility was good the length of the FIDO installation. In addition a hole was burned in the fog over the runway.

Commercial FIDO Use

First commercial installations of a FIDO fog dispersing system, now under construction at Haven Haven Airport, the new port of entry for London, is being watched with interest by American experts.

Britain, which recently ordered nationalization of over 100 airports, probably is another victim of the program under that program, encouraged by the fact that during the war 2,000 military planes were brought safely to ground when obscene British fog shredded their bases.

British, which recently ordered nationalization of over 100 airports, probably is another victim of the program under that program, encouraged by the fact that during the war 2,000 military planes were brought safely to ground when obscene British fog shredded their bases.



First Arcata Test: Ceiling and visibility were "zero-zero" five minutes before the bomber landed. In those few minutes FIDO burners raised the runway ceiling to 1,000 ft. and burned holes in a fog blanket 2,000 ft. thick.

Military Aviation Procurement In Britain Is Twice That of U. S.

No extensive demobilization set up; 900,000 workers in industry which has orders on hand for more than 10,000 service aircraft as compared with 5,000 here.

By SCOTT HERSHLEY

The British aircraft industry, unlike our own, has undergone no extensive demobilization and has a military procurement program in double that of the United States.

The Society of British Aircraft Constructors reports there are 900,000 workers employed in the British aircraft industry "with manufacture of military planes still going on apace, orders for these totaling more than 16,000 aircraft."

► **Far Above U. S.**—The significance of these figures is pointed out by the relative position of the British and American industries. Latest surveys show about 145,000 workers employed in the basic aircraft industry in the United States. Against the 10,000 orders for military aircraft in Britain, the United States has about 5,000 aircraft on order for the Army and Navy combined through June of 1945.

In this connection it is interesting to note that Britain availed only approximately one-third of the number of airplanes produced in the United States during the war. The ratio is about the same as the population ratio—three to one—but Britain apparently takes a different viewpoint of the importance of air power preparation in setting up a peace-time program which calls for twice the number outlined in the current plan of the United States.

► **FACC Report**—The recent report of the Air Coordinating Committee used a range of estimates in reaching its conclusions on procurement by the services. The report said that in determining the upper level—3,250 planes annually—of possible military requirements for aircraft "we have assumed the need for a substantial striking force ready at all times to cooperate in the maintenance of world peace."

The committee concluded of the lower level—3,000 planes annually—"as a minimum which could be reached only after administration of world power is well assured and a substantial degree of disarmament has taken place."

safety margin.

Scheduled military production for the calendar year 1946 is less than 2,000 airplanes, not even 4 percent of the July 1945 production rate. This reduced level of procurement, the report added, "is eroding the base for any future expansion to a point from which it will be impossible to achieve the required volume of production."

► **Policy Lack**—Leaders of the aircraft industry repeatedly have called for a clear-cut national air policy on necessary to assure the place of the United States as the world's leading air power.

Cecil H. Squier, vice-president of Lockheed Aircraft, told the National Aviation Clinic in Oklahoma City, that he wanted to add his voice to those who are advocating the immediate appointment by the President or Congress, of a committee of outstanding, concerned, unprejudiced, public-minded citizens, who would immediately undertake a comprehensive study of all phases of these problems and make recommendations for establishment of a definitive national air-power policy.

► **Possibility**—Eugene E. Wilson, vice-chairman of United Aircraft Corp., and president of the Aircraft Industries Association, suggested to the Clinic that "a long-term Air Power Policy could attract private financing and relieve the government of some direct support. This would free industry from government domination and provide strong incen-

Instrument Backed

An article of aircraft intended to warn the private pilot of static areas of emergency landing speed is an example of civilian application to the private plane's instrument panel, Victor E. Carbunar, Klemm Instrument Co. general manager, told the NAA Private Flyer Conference in Washington, last week.

Carbunar urged that the private plane should be equipped with at least a primary group of instruments,

to enable the pilot, as a measure of insurance, to make a 360-degree turn and get back where he came from.



CARGO-GLIDER PICKUP:

As All American Aviation, Inc., biplane transports stores over the beach at Allerton, Mass., in "match" of a glider loaded with live lobsters consigned to New York market. The test flight, made recently, was termed a complete success. The front cockpit of the two-place sport-type glider was packed with cases of lobsters and the craft was towed to Blandford Field, Peterborough, N. H., where a New York dealer declared the cargo was in perfect condition. Retrieving sheet picking rope.

PRIVATE FLYING

Subcontractor To Manufacture Fairchild F-24's at Texas Plant

Robert McCulloch, former manager there for North American, heads new company which has orders for 200-300 planes; parent concern will handle sales.

An initial contract for manufacture of 200 to 300 Fairchild F-24 high-wing four-place monoplanes has been let to the Texas Engineering & Manufacturing Co., Ltd., Dallas, Tex., by the newly created Personal Plane Division of the Fairchild Engine & Airplane Corp.

It was reported that the parent company which will handle sale of the planes, already has booked over 200 orders for the F-24 and that the initial contract probably will be followed by a larger order. Tools Moved—Jigs, tooling and fixtures for the F-24 which was manufactured pre-war at Fairchild's Hagerstown, Md., plant are being transferred to the former North American Aviation, Inc., plant at Grand Prairie, Tex., near Dallas, which will be used by the Texas Engineering & Manufacturing Co., under a leasing arrangement with Reconstruction Finance Corp. Heading the Texas organization is Robert McCulloch, former Texas manager for North American.

J. Carlton Ward, Jr., Fairchild

president, announced the new division of the company would handle design, manufacture, sales and service of private-owner aircraft, and its research and development program would be guided by Edward M. Fairchild, chairman of the board.

F-24 Price—Price of \$4,500 has been set for the 145-hp, radial air-cooled Warner engine-powered F-24, while an alternate version, powered with a Ranger 801 175-hp, in-line aircooled engine, will be sold for \$5,075. These prices include full standard equipment and instrumentation but not two-way radio.

Ward and Fairchild had disseminated its personnel plane activities from the aircraft division at Hagerstown, Md., to permit that division to concentrate on military, naval and commercial planes. The division is currently producing a substantial order of C-45P cargo planes for the AAF and cargo planes for the AAP and is undertaking new military development work.

Other War Work—During the

war the company manufactured nearly 1,000 F-24s as a military cargo and personnel transport version known as the *Passenger*, or UC-44.

At Dallas, McCulloch said his company had a small force already at work moving equipment into the one-third of the North American Plant A, which will be used for the personal plane production. His company also plans to do several reconnaissance jobs on Army C-45 transport planes to convert them for commercial airline use and is negotiating for additional subcontractors with Fairchild for building sub-assemblies for the C-45 Packet. McCulloch and his partner, H. L. Howard, organized the new company about a month ago.

Post-war Use—In pre-war days the F-24 was used widely by apartment pilots, charter service operators, small oil companies, light aircraft, by government agencies and corporations as an executive plane. The post-war version will be improved over the pre-war plane, reflecting some of the company's experience in producing the military version, Ward said.

It is understood the Texas organization is not financially connected with the Fairchild organization. The arrangement under which the F-24s will be built leaves the Fairchild company free to develop other personal aircraft, while at the same time keeping its name before the public through the Dallas-built F-24s. The company announced more than a year ago it would build a post-war four-seat low-wing monoplane, which have been temporarily shelved due to pressure of C-45 aircraft. It is presumed that this design will be developed further by the new Personal Plane Division.

F-24 Data—Performance of the F-24, equipped with the Ranger 175-hp engine is quoted as top speed, 130 mph.; cruising speed (at 15 percent power) 118 mph.; landing speed with flaps 33 mph.; takeoff to clear 50 ft. obstacle, 1,100 ft.; landing over 50 ft. obstacle, 1,000 ft.; maximum range 528 miles; service ceiling, 14,000 feet.

Standard equipment will include bank-and-turn indicator, rate-of-climb indicator, magnetic compass, altimeter in addition to all primary flight instruments. The plane will be completely wired and prepared for installation of two-way radio with engine shacked, ailerons banded and antennae mounted. It will be wired also for installation



Interior of F-24. Fairchild's F-24 personal plane, to be built in Texas by a subcontractor, is fully equipped for instrument flying and wired for two-way radio equipment. The front right seat folds forward to allow access to the rear seat.

of landing lights.

While specifications and construction details of the Dallas-built F-24 are not given, it is presumed the plane is essentially the same as the P-26/W-4 pre-war plane, which had a 210-hp. 4-in. wide, 250-cu. in. Pratt & Whitney R-985, Wright 904, Wright 9-15, Wright 14-165-hp. wing loading, 1,463-lb. weight empty, 2,530-lb. gross weight. Contractions were false covered welded tubing with spruce wingspan and ribs. The high wing was braced with two struts. Landing gear was semi-canopy split-axis type with full swiveling tailwheel.

Northwest Air Council To Meet Next Month

The Pacific Northwest's aviation problems are scheduled for discussion Jan. 21-22 at Boise, Idaho, when the Northwest Aviation Planning Council holds its first post-war meeting. Representatives from Washington, Oregon, Idaho, Montana, Alaska and the Canadian provinces of British Columbia and Alberta will attend.

Tentatively listed for attention are education of aviation personnel, federal participation in airport development, military and national guard aviation, state departments of aeronautics, airport engineering, outlook for women in aviation, aviation legislation and tourism. Harry L. Yost, national chairman of the organization, will be general chairman.

ASME Hears Burden Ask Better Planes

The most important single step toward the solution of private flying problems in the U. S. is to get busy and "turn out better and easier to fly personal aircraft," William A. Burden, assistant secretary of Commerce, told the annual meeting of the American Society of Mechanical Engineers last week in New York.

"The industry will be doing itself and the country a disservice," he said, "if it dilutes the standards of new flying devices by offering them, in the name of post-war aviation, planes which give far less utility and comfort than the present state of the aircraft designating personnel."

Private—He urged the industry manufacturers "to produce a minimum number of old-type planes to satisfy essential demand and keep your organization raised, while moving full speed ahead to develop an improved airplane."

Burden urged full utilization of such technical advances as tricycle landing gear, sprung propeller characteristics, improvement in landing and takeoff performance through lower power loadings, two-control systems and reduction of external noise, either through redesign of propellers or use of some other type of power plants.

Other Needs—If designs get busy on these problems, he said, we can have 400,000 personal planes in the U. S. in ten years if they fail, he warned, we'll realize more than a quarter of that.

Other steps urged by Burden were: thousands of new small airports, better air marking, improvement of airport facilities.

Baltimore Rolling

Baltimore Aviation Commission has approved application of three flight schools for use of facilities at Baltimore Municipal Airport, opening the training field to civilian fliers for the first time since it was constructed.

Flight instructions and students must clear with the controller before takeoffs and landings and must conform to traffic pattern, but training flights will not be required to practice takeoffs and landings until traffic becomes heavier. Schools using the facilities are Stevens Flying School, headed by Edward L. Stevens; Oriole Flying Service, headed by Joseph Delan and Dr. M. Charles Klein, and Wilson Flying Service, headed by Howard French.

Private Schools Allowed To Buy Surplus Planes

Revision of Surplus Property Administration regulations to make it possible for private aviation technical schools to obtain surplus aircraft and parts for instructional purposes was revealed today by Wayne Weisbar, secretary of the Aeromedical Training Society.

While tax-supported institutions have been eligible to buy aviation surplus for non-fight use at extremely low prices, private schools heretofore could not. Costs to the private schools were set at \$100,000, but it was understood that the prices would be slightly below the scrap values of the equipment concerned. By contrast, prices to tax-supported institutions are lower, ranging from about \$100 for a fighter to \$350 for a heavy bomber.



Due for Production in Texas. The Fairchild F-24, four-place personal and business plane, will be produced at Dallas, Tex., under a subcontract arrangement between Fairchild Engine & Airplane Corp., Personal Plane Division, and Texas Engineering & Development Co. Above, an F-24 powered by a 175-hp. Ranger motor takes off.



NEW PUBLICITY ANGLE

H. G. (Buddy) Nelson, Phoenix, Ariz., Europa distributor, was widespread personal publicity for personal planes recently at the first Arizona Aviation Conference, Tucson, when he landed on an oil spreading aircraft, with his Europa and taxied it up Broadway, parking it in front of a "No Parking" sign. A motorcycle cop promptly arrested him, and Nelson paid a \$1 fine for several hundred dollars worth of publicity.



YOUR ADDRESS IN THE SKY



**PERSONAL
PLANE
RADIO**

• G-E Electronic Aviation Equipment will be important in your plane of tomorrow. It will give the skyways with new safeguards undreamed of a few short years ago. Whatever the time or wherever you are it will enable you in flight to keep in constant touch with the ground—and ground in contact with you. It will be your invisible connection with airport and radio beacon—for flying instruc-

tions, weather reports, guidance along the airways. It will bring you radio broadcast entertainment to brighten dull moments of long trips.

The G-E message flies in U. S. Army and Navy aircraft

GENERAL ELECTRIC

Aero Insurance Underwriters Cuts Premiums As Much As 50%

Group, one of nation's largest aviation policy handlers, makes reduction in expectation of great flying expansion and consequent increase in volume of premiums.

Reductions of as much as 50 percent in insurance premiums for personal aircraft owners and aircraft service operators have been made after study by Aero Insurance Underwriters, one of the nation's largest aviation insurance groups.

While even all option in the insurance field is that loss experience does not justify any substantial premium reductions, at the present time Aero is making its decreases on the strength of expected flying expansion. G. L. Lloyd, general manager, states:

Volume Increase—In our judgment the number of aircraft in non-scheduled operations next year should be at least double the number this year," he says. "This postulates the assumption that the future will bring a substantial increase in volume of passengers. If so, it is important from the standpoint of cost of liability insurance will be removed and rates can be radically modified."

As examples of the new rates, a \$1,000-\$10,000 public liability insurance policy now costs \$10 for the private owner and \$15 for an aircraft service operator, as against the old rates of \$30 and \$35. Property damage policy in the amount of \$5,000 now requires a premium of \$13.00 for the private owner and \$17.00 for the operator, compared with \$35 and \$40. The operators premiums on a \$5,000 passenger liability policy covering passengers carried by air are cut from \$300 to \$75.

Laws Coverage—Along with the reductions, Aero has instituted a new form of coverage, "single limit liability," which can be bought in place of the usual multimillion dollar policy on public liability and property damage. A personal aircraft owner will pay \$17.50 for coverage in the amount of \$10,000 on both public liability and property damage. A limit of \$16,000 on both forms requires a premium of \$33.50. A \$25,000 limit has a premium of \$39.50. The single limit coverage is also available to include passenger liability.

In a letter to Aero's agents and brokers, Lloyd frankly admits the

new rates and coverage are experimental, but while flying will increase, he emphasizes, "we expect that losses will not be any greater proportionately than in the past."

Safety Manual—In an endeavor to contribute to the safety record, Aero has published an "Airplane Operators and Maintenance Manual" to guide business executives in use of company-owned aircraft.

Prepared by the underwriter's engineering department, the manual

stresses, among other points, the

danger of an executive's ordering

a flight when in the opinion of the

pilot, the flight cannot be made

with maximum safety.

region includes Texas, New Mexico, Arizona, Oklahoma and Louisiana.

Veteran Flyer—Cox, a combat pilot in World War I, returned to CAA recently after AAF service in the second World War. He was assigned as a private flying specialist before he re-entered military service. His other aviation experience includes airplane sales and flight instructor work.

Oklahoma Sales System For Voyager Set Up

Plans to develop a statewide Oklahoma lightplane distributor-dealer organization for the Stinson Voyager 150 were announced at Oklahoma City last week by Frank



CAUSE AND EFFECT:

Use of insulating material and dual engine radials (above) has made it possible to reduce the weight in the new Stinson Voyager 150 to a point where the plane uses a cabin door loudspeaker (below) in place of the headphones which have long been standard personal plane radio equipment. For darkhairs who still wear headphones, a jack is provided on the panel.



Cox, Berry Named Aides For Personal Flying

Col. Charles E. Cox, Jr., and William M. Berry, veteran CAA employees, have been appointed as assistants to regional administrators for flight transportation for personal flying development.

Cox, former manager of the Indianapolis Municipal Airport, is assigned to Region 3, including Illinois, Ohio, Indiana, Kentucky, Minnesota, and North Dakota, with headquarters in Chicago. Berry, who formerly operated his own flying service, was superintendent of safety regulation in the Fourth Region with headquarters at St. Louis, where he will continue to serve in his new post. The

Clark, automobile dealer, who will operate the state distributor headquarters in combination with his automobile business is a new \$200,000 downtown sales and service building.

The airpark business will be directed by Clark and Clark, who served there as a trooper and command pilot before his recent heroic discharge, and his daughter Betty, now studying aviation law at Northwestern University.

The state dealer organization, it is being planned, will be set up as rapidly as production of the airplane justifies.

Airpark Programs Boom in Missouri

15 communities follow Eldon's lead and 25 others are planning similar projects.

The example set by the Eldon, Mo., small community, which year has passed, has led to similar projects in 15 other Missouri communities of like size, while 25 others are making plans for campaigns to have their own airparks. Eugene Fyffoff

aviation director of the state resources and development division advised Aviation News last week.

The aggressive attitude taken by the Missouri towns toward airport development may be cited as a specimen of the grass-roots airport and landing facility potential which Arthur C. Hauseman, chairman of the CAA unscheduled flying committee, expects will lead with proper cultivation by local governments and individuals to as many as 10 to 20,000 landing facilities throughout the nation in the future.

► **Dedication:** Fyffoff and Mayor Bas Reed of Eldon, disclosed that the model airpark already is being used by private flyers to a limited degree, although facilities there are under construction. Plans are being laid for a flying dedication of the airport with wide representation from private flying interests, next June 1 and 2, under sponsorship of the Personnel Award Council of the Association of Chamber of Commerce.

Eldon Smith, head of Airports Associates, Inc., Kansas City, will manage the Eldon Field. It is expected that this field in time will become a national model and draw

play location for many types of hangars and other equipment which will be designed for airports.

A model contract is being drawn up for management of the airport which it is expected, will be used generally by other Missouri towns interested in financing similar projects.

► **Flyball:**

Bendix Corp.,

which successfully

last spring to authorize a \$25,000 bond issue for financing the field,

which is located within the city limits, has served as a model for

a number of other communities

Fyffoff said. Eastern, large newspaper display advertisements, campaign meetings, and house-to-house visits to get out the vote for the airport bond issue were the main methods used.

Among examples of other Mis-

souri towns cited by Fyffoff as

following Eldon's lead are:

► Albany, population 2,300, which

has voted a \$32,000 bond issue for a 100-acre airpark.

► Belvoir, population 3,600, which

voted a \$15,000 bond issue

for an airpark.

► Boonville, where 32 business men

got up \$100 apiece to purchase a 100-acre airpark site.

► Slater, population 2,500, which

lost its airport bond issue election

by 33 votes. But citizens petitioned

the city council to buy the airport

site anyway, with funds which

were available, and the council re-

sponded to make the expenditure.

► Warrenton, the only other

town where an airport bond issue

has failed to carry, also has an air-

park in spite of the defeat. Ken-

neth Marie Warrenton director,

and chairman of the airpark board,

caused enough trouble for the pro-

posed airpark site as a private

venture and in developing it for

community use.

The airpark sites at Belvoir, Slifer and Albany all are either partially or completely within the corporate limits, within easy walking distance of any part of town, and it is planned to include the portion of the airparks which are now not within the limits, by amending municipal ordinances.



FLIGHT DEMONSTRATOR:

A flying laboratory to demonstrate the new Flightweight line of personal plane radio equipment has been announced by Bendix Aviation Corp., radio division, Belmont. Gordon R. Mathews, experienced transport pilot, and formerly active in CAA and in civilian training schools for AAF pilots, will have charge of the plane, operating out of Chicago over the eastern half of the United States. Bendix engineers expect Mathews' experience with the flight laboratory will contribute much practical knowledge toward tests and further development of personal plane equipment.



5,000 WERE ASKED . . .

As a guide to the private plane manufacturer in developing his new models, more than 5,000 pilot and pilot-owner members were recently asked by the Aircraft Owners and Pilots Association to state, on the basis of their experience, their insurance requirements in the new planes which they planned to purchase. The replies of this experienced group, three-fourths of whom are or have been plane owners, will be of interest to all who, themselves, plan to purchase planes. The results showed that these pilots were overwhelmingly in favor of "better" instruments than most private planes contained. And they were willing to "pay more" to get them. Reasons: "To make flying safer . . . to increase the utility of my ship . . . for efficiency and economy." Over 80%, for instance, want Synthetic Altimeters in their new planes. To meet the need so clearly outlined by these thousands of pilots, Kollsman has developed a new line of instruments designed and proved for the private plane owner. Full details of these instruments will shortly be announced. Meanwhile, Kollsman is making available the plane answers to the seven basic questions in the ADPA Survey. For your copy, write Advertising Dept., Kollsman Instrument Division, Square D Company, 40-65th Avenue, Elmhurst, N. Y.

KOLLSMAN AIRCRAFT INSTRUMENTS



SQUARE D COMPANY

ELMHURST, NEW YORK SAN FRANCISCO, CALIFORNIA

Stars in the sky.... Western Airlines

Famous transports that fly on Chevron Aviation Gasoline

EVER SINCE its birth, carrying both cargo and busy people, Western Air Lines' huge sky ships are still night and day. The older airline, at the present, Western, charmed nearly two decades ago some of the stars they fly today. To help maintain a time-tested high standard of service, Western fuels all their planes in the Pacific West with Chevron Aviation Gasoline.



OLD-TIMER TRANSPORT, the fast, with four engines and sleeping accommodations, was introduced by Western in 1930. It was the forerunner of large, 48-passenger, fast and comfortable Western airliners now being manufactured. The maximum power output of Chevron Aviation Gasoline operates these air giants economically and with ease.

WESTERN AIR TRAVEL covers the West. And whenever Western transports fly in the Pacific War, Chevron Aviation Gasoline sends them. Chevron is available for private flights, too, along all the highways of the West.

CHEVRON
AVIATION
GASOLINE

STANDARD
OF CALIFORNIA
Inland District Refinery



NEWPILOT MIGHT get Chevron Aviation Gasoline if the O. R. says, like many novices, you'll find Chevron Aviation Gasoline brings out the best in your engines. It will make your personal plane, too, a star in the sky.



1942 HORSEPOWER RECORD, powered Western's Airplane record holder, a Douglas C-47, recently became the world's record Douglas C-47. Standard Chevron Aviation Gasoline makes engines last longer—run cleaner.

PRODUCTION

Use of Nazi Helicopter Designs Believed Under Study in U. S.

Aeron Flettner, noted German engineer, offers to build samples of his models and make his knowledge available; one craft called most advanced in field.

Possibility and desirability of attaining German helicopter designs and techniques is believed to be under study by U.S. industry and government, following an offer by Aeron Flettner, Germany's foremost rotary-wing engineer, to build samples of his latest creation for U.S. authorities and make his knowledge available.

Flettner, while confined to a detention camp by occupation forces, revealed many details of his work to the Combined Intelligence Operations Subcommittee, the report of which has just been released. **New Design**—Although the Flettner FL-252 (AVIATION NEWS, Oct. 15) is regarded as being a more advanced type of helicopter, its inventor terms it succeeded by a new design, the FL-253, which incorporates his entire 12 years' experience with rotating wing craft.

Bred as one of the world's leading aeronautical designers and as a member of Hitler's secret council of developments which are used on most aircraft, Flettner has been working on helicopters since 1927 and in some respects may have achieved better results than helicopter engineers in this country. The FL-252 was the fourth design of his company and 26 different models of it were built. By the end of the war, the German armed forces had placed an order for 1,000 of them.

Performance—Some Allied specialists who have seen a 252 have confirmed that it holds the peak of present development in the field. It was used by the Germans for convoy patrol in the Aegean Sea and in tests it flew at 50 mph winds. It can achieve an altitude of about 16,000 ft., and can carry two or three persons at a top speed of close to 100 mph.

The two rotors of the craft were two-bladed, mounted on separate but adjacent hubs, and inclined away from each other while re-

tating in opposite direction. As they are practically one answer, Flettner says, it is unnecessary to have rotors on each side of the craft, or a counter-rotating propeller in the tail.

The going is simple; the rotor shafts being connected to the motor by a worm gear drive.

Application—Flettner declares that the 253 design is especially applicable to the construction of helicopter cars and buses, and it is this enterprise that he would like most to cooperate in with U.S. manufacturers. When freed, he hopes to be able to develop his ideas along that line.

Details on Flettner's newest design, the 253, have been revealed. He proposed to occupation authorities that he be permitted to reopen his factory at Frankfurt-am-Main under the no visibility of

Argentine Exports

Beginning of the granting of export licenses for aviation equipment to Argentina is announced by the State Department. Licenses will be valued to the requirement that the equipment be used only for developmental purposes and commercial aviation.

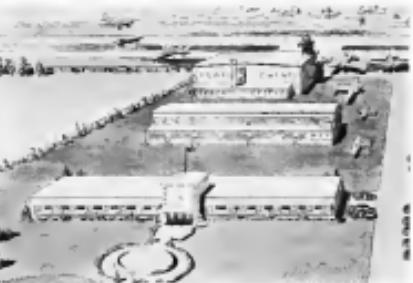
"This action results exclusively from the progressive termination of wartime restrictions," the Department declares, "and is totally unrelated to our political considerations."

Altered officials, and construct four model B-25s, two each for the British and the American. Only in this way, he asserted, could be transmitted all the information on helicopter design that he has at his disposal.

AAF Orders for P-82 Believed on Way

Indications that North American Aviation soon will receive production orders for its Twin Mustang fighter-bomber, the P-82, were strong last week as the Air Technical Service Command completed trials of the plane.

The P-82 tops 470 mph. Its a



NORTHROP SCHOOL:

Creation of Northrop Aeroplane Institute, which will begin operations early next year, has been announced by Northrop Aircraft Co. at Macchord, Calif. Sketch shows buildings which will be occupied by the Institute at Northrop Field. The school will specialize in aeronautical engineering and airborne maintenance, emphasizing house-study courses in January and resident school classes in March.

combat range of more than 2,000 miles and will operate up to 45,000 ft., ATC disclosed.

Heavy Armed—It has a gross weight of 20,000 lbs. and empty weight of 14,330 lbs., mounts six free-firing .50 caliber machine guns in the center wing section, four each for .40,000-lb. bombs, and five rocket-launching racks carrying a total of 35 rockets. An eight-gun missile can be installed below the wing at the centerline.

Dual controls make the fighter a two-seat plane, although the chief pilot is assumed to be left-hand seated. A nose gear, 4,400 lbs. in weight, is maintained by the plane's two Packard-built 12-cylinder V-1650 Rolls Royce engines. Tactically, the plane offers the advantages of two-engine performance, while maintaining the features that would ordinarily be suffered by a single pilot on long missions.

If NAA receives a production order for the P-82, it will be produced in the company's Inglewood plant on lines previously producing the P-51H.

Constellation Wing Given "Shake" Test

Lockheed expected to announce results soon on 6,000-hr. check on integral fuel tank leakage.

Lockheed Aircraft Corp. is expected to announce soon the results of a 4,000-hour shake test conducted with a Constellation wing section in seeking to solve



"Constellation" Wing "Shake" Test: Clamped securely on a massive steel testing rig, the wing of the Lockheed Constellation "flying" at a speed in excess of 300 miles an hour. This test has flown for 4,000 hours to test structural strength and the efficiency of integral fuel tank sealing methods.

problems of integral fuel tank leakage.

Indication has been given that the company has succeeded in developing a satisfactory tank sealing compound, and that no major leaking should develop in production models of the Lockheed transport.

Major Problem—Integral fuel tank leakage proved a major problem in the design of four-engine military bombers and transports, and during the closing year of the war all manufacturers of medium-size planes were called to cooperate in solving this through the development of sealants and new tank structures designs.

To test the success of Constellation integral tank improvements Lockheed developed a simple but highly successful shaking mechanism shown in the accompanying photograph.

Vibration—At the outer end of the securely mounted wing was fastened a framework transmitting to the wing the vibration impulses of a weight-loaded eccentric flywheel electrically driven. Small eccentric vibrators were mounted on the main spar at engine mount points to provide a simulation of engine vibration.

So successful was the device in running the fuel tank tests that Lockheed engineers are continuing its use in an extended study of the effects of vibration on the integral fuel tanks under simulated flight stresses. Test loads of up to 30 gals have been applied, and for the first time engineers have been able to study the "weak-

C-W Acquisition

The Marquette Products Co., of Cleveland, manufacturer of precision parts and assemblies for the automotive and aerospace industries since 1929, has been acquired by Curtiss-Wright Corp.

G. W. Vaughan, president of Curtiss-Wright, will assume the newly-created position of chairman of the board of Marquette. Herbert Goetz will continue as president and general manager of Marquette which currently employs 1,000 people at its Cleveland plants where operations will be continued. No change in personnel is contemplated under the new setup.

Market Trend—Marquette is the second firm Curtiss-Wright has acquired during the past year, marking a definite trend for the corporation in taking over comparatively small manufacturing units where engineering and management can be used to advantage. Late in 1944, Curtiss-Wright purchased the L.G.B. Spring Check Corp., of Indianapolis, manufacturers of spring catch assemblies for all types of mechanical equipment.

1/2" of both the interior wing structure and outer covering during the simulation of flight stresses resulting in displacements of up to 10 inches at the outer portion of the wing.

This is the first time that aircraft designers and engineers have been able to observe first-hand the effects of flight upon a plane's internal structures," says Hall E. Hubbard, Lockheed vice-president and chief engineer.

De Havilland of Canada Taking Back Factories

De Havilland Aircraft of Canada, Ltd., is gradually resuming operation of the factories at Toronto for peacetime production. The Canadian government took over the facilities to speed production of the Mosquito combat craft, and is now turning them back to the company.

Some of the buildings already are being used, while the three war-time built assembly bays for the Mosquito will be operated by the government, currently for storage.

Please Prepared—While no new



3-comp pressure regulator—adjustable to operate between 1,000, 1,500 or 2,000 psi hydraulic pressure controller and lighter dual metal type. Holds constant pressure differential from -60°F to +160°F.



New 1000 psi hand pump made to meet AA specification—lighter in weight, requires less power than conventional hand pumps. Weighs only 1.2 lbs.



New check valves for 1,000, 1,500 and 2,000 psi hydraulic systems require either older style valves or valves mounted on metal-to-metal thin flexible hoses.

AIR ASSOCIATES INCORPORATED

- (1) THREE-RANGE PRESSURE REGULATOR
ADJUSTABLE TO DESIRED P.S.I.
- (2) LIGHTWEIGHT SMALL SPACE HAND
PUMPS FOR 1,000, 1,500, 3,000 P.S.I.
- (3) MALE AND FEMALE CHECK VALVES
FOR 1,000, 1,500, 3,000 P.S.I.

Harnessing 3,000 psi Hydraulic Pressure

The extra advantages of 3,000 psi hydraulic pressure can now be utilized completely with these new units for Associate design and manufacture... a small, light, adjustable 3-range pressure regulator... check valves, plastic-coated oil poppet type or steel ball type... and a low-weight, high-capacity hand pump... All meet latest Army-Navy Specifications.

The compactness and light weight of these units recommend them to aircraft manufacturers. But their dependable and accurate functioning in heavy service and temperatures ranging from -60°F to +160°F... suggest significant new potentials for hydraulics applications in all industries!

Air Associates is also prepared to make custom cylinders suited to your individual 3,000 psi hydraulics requirements. Detailed specifications on all AA hydraulics equipment on request... Inquiries are invited.

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TESTERSON, N.J. BRONX, ATLANTA, CHICAGO, DALLAS, LOS ANGELES
ENGINEERS AND MANUFACTURERS OF AIRCRAFT SPECIALISTS
SUPPLIERS OF ALL TYPES OF MATERIALS USED IN THE INDUSTRY

type aircraft are yet announced by the company, it was learned plans for new aircraft are being drawn. Minneapolis-Honeywell has seven hundred employees on the plant manufacturing the pre-war designed Fox Moth, a four-seat cabin-type biplane, powered with a single Gipsy Major engine. Ten flights of the first pre-war model are expected soon.

Airspeed Ambassador Being Pressed

Now under development at the Airspeed factory in Britain is the Airspeed Ambassador Transcontinental liner of 45,000 lbs loaded weight, high-wing arrangement, tricycle undercarriage, nose wheel steering, low loading position and level attitude when at rest.

The craft embodies a thin laminar-flow wing. It is powered by two Bristol Centaurus 2890 hp. sleeve-valve engines. The company reports it will take off and clear a 50-ft obstruction in 750 yards and climb continuously thereafter at 1,500 fpm when loaded to gross weight and carrying a payload of 9,400 lbs. It is designed to cruise at 240 mph. at 30,000 ft. Range is around 10,000 miles.

► **Pressurized**—The cabin is pressurized and air conditioned. The plane is expected to fly next year.

New Rubber Booklet

A booklet outlining applications for rubber and synthetic products in industry has been published by B. F. Goodrich Co., and is being supplied on request. Opening pages are devoted to explaining Kordoid, a flexible synthetic material.



New British Transport: Artist's drawing of the Airspeed Ambassador which is expected to fly next year. It has a gross weight of 45,000 lbs and a cruising range of 10,000 miles.

Minneapolis-Honeywell Expands

Minneapolis-Honeywell Regulator Co., manufacturers of automatic controls, including recently announced electronic automatic pilots and other automated devices, reports that its expansion program, which will cost \$5,000,000 and enlarge plants and equipment in three U. S. cities, and in Toronto, Canada.

The company's main plant in Minneapolis was expanded during the war, but will be enlarged still further with the construction of a new wing to add 120,000 square

feet. Facilities in Chicago and Philadelphia will also be increased.

► **Employment** — Harold W. Sennett, company president, says that the reorganization is practically completed and that employment is approximately 30 percent above previous wartime levels.

The number of employees is expected to go even higher when the factory expansion is accomplished according to present plans made by the company.

Canada Studying Tailless Aircraft

A general investigation of tailless aircraft is being conducted by the National Research Council at Ottawa. J. H. Parkin, director of the mechanical engineering division tells *Aerospace News* this investigation includes wind tunnel studies, work in the spinning tunnel and flight trials of a flying model, to study the stability and control of this type of aircraft.

A glider model has been chosen for the flying model in order to avoid interference with various instruments and to avoid the additional complications of an experimental engine installation combined with a taildragger. The wing span of the model is 30 feet and the maximum weight in test will be approximately 4,000 pounds. A pilot and observer will be carried and dual controls are provided. The wing section is of the low drag or laminar flow type. The primary structure of the glider is entirely

wood, embodying a relatively thick laminated plywood skin over conventional ribs and a single laminated spar.

► **Instruments** — Fairly extensive automatic recording instruments are being fitted for the flight trials.

Use of Rocket Sleds For Takeoffs Discussed

Possibility of utilizing a rocket-propelled sled for the launching of jet aircraft is being discussed in aeronautical design circles. The device would replace conventional landing gear. Jet nozzles would be so designed to make feasible "dry" landings without damage.

The sleds would have small, lightweight retractable gear to facilitate ground handling.

► **Slews** — In takeoffs, the jet plane would be hurried onto the air leaving the sled on the ground. Claimed advantages of the proposal is a great weight-saving in eliminating conventional landing gear, shortened takeoff distance, and, through the use of the smaller landing gear, more space for payload.

Board Completed

Formation of the board of directors of War Assets Corp., a Reconstruction Finance Corp. subsidiary which will take over RFC's surplus disposal functions (*Aerospace News*, Oct. 29), has been completed and Arthur J. Faussett has been named WAC president.

Other members of the board, in addition to Faussett and Sam H. Hubbard, chairman, are George F. Blaikie vice chairman, Harvey C. Gunderson, Merritt C. Peiffer and David H. O'Brien.

WARREN MACARTHUR SEATS FOR THE NIGHT

"THE FAMOUS MACARTHUR SEATS" YOU READ
ABOUT WERE DESIGNED AND BUILT BY WARREN
MACARTHUR, NOT ONLY FOR GENERAL MACARTHUR
.. THEY WERE "MUST" EQUIPMENT IN MOST ALL
COMBAT AND TRANSPORT PLANES USED IN THE WAR

WARREN MACARTHUR CORPORATION
ONE PARK AVENUE NEW YORK CITY
TRANSPORTATION SEATING

PERSONNEL

Col. Rose Named Aide To TACA Board Chairman

Col. Leonard M. Rose (photo) has been appointed assistant to Benjamin F. Pepper, chairman of the Board of Directors of TACA. Until his recent release from the Army, Col. Rose was chief of TACA's transportation, basic association, and Central American Conference.

Before he had his first year's experience in various fields of transportation in Latin America and spent 18 of those years in Mexico. C. E. Lewton has been promoted to that of assistant treasurer of TACA. And, the Agency, Inc., London joined the organization in 1944 as assistant manager. The agency represents TACA airlines of Central and South America.

Albert H. Charlton (photo) has been elected vice manager of the aluminum division of the aluminum division of Reynolds Metals Co., with headquarters in Louisville. Charlton joined Reynolds in 1936 and was assigned to the company's sheet mill, later he became an assistant plant manager. He helped put the plants for prefabrication of aluminum parts for aircraft.

Carl J. Stader, formerly an aircraft maintenance supervisor for the AAF, Air Technical Service Command, has been named assistant to the chief engineer in charge of development of aircraft hydraulic systems with the aircraft maintenance equipment by Grumman, Inc., Brooklyn.

Cliff Johnson, former member of the public relations staff of North American Aviation, Inc., has been appointed to the public relations department of Douglas Aircraft Co., Inc., Santa Monica, succeeding Irving Krause, who has been engaged as director of publicity for the Los Angeles Chamber of Commerce.

Stanley Schleifer has been named director of advertising for the international division of Transoceanic

Airline & Western Air, Inc., and Wallace Brown, Jr., has been named director of passenger sales. Schleifer was with the Transoceanic Command and prior to joining the service, was account executive on TWA advertising. Brown has spent 38 years in the railroad and steamship business.

Ringer Is Elected ACT Vice President

Capt. John Ringer (photo), Chief Pilot for Air Cargo Transport Corp., has been elected vice president of the airline of flight, it has been announced by H. Roy Pennington, president. Capt. Ringer will continue as chief pilot of the line, now operating non-scheduled service out of Newark Airport with a fleet of seven DC-3s. Capt. Ringer joined ACT in August, coming from Colonial Airlines.

Constance Peterson has resigned as chapter service director of National Aeromaritime Association, to return her husband who has been in the service. She is being replaced by Mrs. Lucille Thompson, formerly with the U. S. Public Health Service.

C. R. Reid has been appointed manager of the Los Angeles branch of Air America, Inc., after having been temporarily assigned to the Los Angeles office for six months. Reid, who previously was with Elginair Aircraft, Nudair, Bradley, Inc., and Air Associates' main plant at Teterboro.

Col. Frederick G. Bettis (photo), former chief of staff of the 5th Fighter Wing, U.S. Air Forces, Europe, has been leased by the Army to become executive consultant to the senior vice-president of Transoceanic & Western Airline Co. Bettis has been with TWA and its predecessor companies since 1926. Prior to joining the Army he was associated in the management of the airline's transcontinental division under contract to the Air Transport Command.

Transoceanic Heads United's Mexican Subsidiary

Allen F. Sonnenfeld has been named president and general manager of United Latin American Airlines Mexican, S. A., Mexican subsidiary of United Air Lines. He succeeds William A. Tamm, general manager, who has just returned to United after service as a commander in the Navy's Bureau of Aeronautics at Washington. Before going into service he was assistant to Tamm's vice-president-operations. He began his flying career in 1931.

W. G. Wood, eastern traffic manager of Trans-Canada Airlines prior to his enrollment in the Canadian Army in 1942, has been appointed assistant traffic manager for TCA, and will specialize in development work as it affects the traffic department.

David F. Blackham has been appointed director of the Atlantic region for the international division of Transoceanic & Western Air, Inc., which, G. Gedim, vice-president, supervises. Blackham is a millionaire pilot and has been directing the transcontinental division of TWA since last year. Golein, who has been with TWA for 35 years, also is a veteran pilot. He has been senior and manager (flight) assigned to the transcontinental division.

Ellen Gibson (photo) has been named publicity assistant in Broadcast Airways, Inc.'s public information department. Her appointment is part of a long range plan for enlargement of Broadcast's public information department, recently established out of the southern region public information department at American Airlines in Dallas. Miss Gibson will handle general news and feature stories.

W. L. Wilkinson has been made new sales manager for Solar Aircraft Co. Dan Young and William H. Quade, Jr., have been named his assistants. Wilkinson had been purchasing agent for Polaris Aircraft Co., and after a period of private business joined Solar as assistant purchasing agent in 1942. Young was affiliated with the Wright Brothers in 1918



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NORTHROP AIRCRAFT, INC.

Announces a New Division

The NORTHROP AERONAUTICAL INSTITUTE

dedicated to the training and advancement
of men for careers in aviation



The entire aviation industry recognizes the critical shortage of aeronautical engineers, aeronautic maintenance specialists, and expert master mechanics. Like other employers of aviation personnel, Northrop has found far too many of the present applicants for positions lacking in overall aeronautic knowledge. To handle a responsible job for civilian air lines, air bases, maintenance depots, or manufacturers, today's employee must have up-to-the-minute, comprehensive training in the handling of all types of civilian aircraft.

To meet this need, NORTHROP AERONAUTICAL INSTITUTE has been founded.



In this completely new school in the midst of the Northrop plant, students will learn the aviation craftsmanship of today—and tomorrow. They will be located on the Northrop mile-long air field, surrounded by amazingly interesting research and development work—jet propulsion, gas-turbine aircraft engines, radar, and advanced surface design.



Through the new courses offered by Northrop Aeronauteal Institute, students can obtain specialized education for important positions in power aviation. Every detail of every course is fitted to the new aviation requirements. Yet the Northrop training programs are already proved by the education of thousands of employees and Air Forces personnel.



Each Northrop student gets the benefit of completely modern technical information and educational methods, as well as extensive equipment for practical shop experience. Even the specially designed school buildings are new.

We believe that the Northrop Aeronauteal Institute will provide aviation training that is unparalleled in its value both to students and to the aviation industry. It is our sincerest wish that in 1946 and following years, the name "Northrop Graduate" will be a synonym for a versatile and tested expert in the field of aviation.

Inspiring invited for classes now forming.

Northrop Aeronauteal Institute

(A division of Northrop Aircraft, Inc.)
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HAWTHORNE, CALIFORNIA

NORTHROP AERONAUTICAL INSTITUTE
1005 E. BROADWAY
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Check one: House Is School College

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- Aerospace Maintenance Specialists
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- Aerospace Electronics
- Aerospace Structures
- Aerospace Materials
- Aerospace Mathematics
- Aerospace Physics
- Aerospace Chemistry
- Aerospace Mathematics

and since then has been with Curtiss-Wright, Scranton, Republic and Brewster. Quade was a contract administrator for Lockheed before joining Solar.

Willis Wurman has been named assistant chief engineer in the aircraft division of Continental Motors Corp. Wurman has been connected with the Warner Aircraft Co. for the past 12 years and was chief engineer.

William Moseley Miller (photo) has been named director of advertising and publicity of Air Cargo Transport Corp. Miller goes to his new position from the War Advertising Council with which he was associated since its return as a non-governmental corporation.

Deaf Price is the war's first man in charge of magazine and feature publicity for the National Broadcasting Co. Miller will develop an advertising and publicity plan in keeping with the company's national service to shippers by cargo charter planes.

A. D. Palmer, Jr. has resigned the position of director of public and internal relations for Curtiss-Wright Corp.'s airplane division which he has held for 18 years, to join the Becker Dowling Adams Advertising Agency of Manhattan, N. J., as an account executive.

John Snare, Jr. has been appointed director of public relations for Bell Aircraft Corp., succeeding **Stephen E. Friesner**, who was recently promoted to accept a position as manager of personnel in New York. Snare is a Washington newspaperman who was director of information for the Selective Service System until he joined Bell in 1944. He has been assistant director of public relations for Bell.

J. P. Shaw (photo), former chief of flight at Consolidated Vultee Aircraft Corp.'s Tucson, Ariz., division, has been appointed communications manager for Convair's Stinson division sales department at Miami. Much Shaw was an attorney and well known between sales and production departments and had service reports from distributors and dealers of the Stinson Voyager general airplane.

George E. Woodward (photo) has been appointed assistant to Robert L. Cummings, manager of Pan American's 111-seat 475' All-American division. Woodward was previously assistant to John C. Cooper, who recently returned to Pan American vice-president and administrative manager.

He is Juan T. Tripp, Woodward joined Pan Am in 1936 serving in several capacities.

Frank W. Jones, former lieutenant commander in the Navy with Air Group 20, heads the recently-formed light metal products division of Northrop Aircraft, Inc.

Carl Narveson, managing editor of Aviation magazine before the war, has recently joined Fortune magazine as a staff writer on aviation subjects. Narveson, a former first member of a small staff who went to England early in the war to set up the organization that subsequently became the R.A.F. Air Force. He later became assistant chief of engineering.

TELLING THE WORLD

* The Burton-Biggsaw trophy presented each year by the Seattle Aero Club to the best Seattle editor has been awarded to George E. Booth, public relations director of Chicago and Southern Air Lines. The voting award is presented each year to the editor chosen the best job of interpreting passenger travel to the public. Booth, who also was named director of the Southwestern Association of Industrial editors for the State of Tennessee.

* **TACA Airlines Agency, Inc.**, representing several affiliated and associated companies in California and South America, announces appointment of Royal de Gennin as advertising counsel. Newspapers, magazines, trade papers and other media will be used. Paul de Gennin is account executive.

* **R. B. Stevenson**, former representative of Pan American-Globe Airways in Miami, has been transferred to the New York office as senior general traffic manager. Charles de Gennin is handling Pan American's N. Y. advertising publicity.

* **Jack Prentiss**, city editor of the Reading, Pa., Eagle, and with the Philadelphia Inquirer in New York, has been appointed editor of Lockheed Aircraft Corp.'s plant newspaper, Lockheed Star.

staff-intelligence to Maj. Gen. Curtis LeMay at the newly formed Third Air Division.

Cpt. William C. May, former American Airlines maintenance field supervisor at Los Angeles Field, has been discharged from the Army and has returned to the company as director of maintenance and overhaul of American Overseas Airlines. **Richard C. Hansen**, formerly with Bellanca, Inc., manager of the aircraft for American Airlines, has been appointed to the position of personnel administration manager-troops.

F. J. Bassett, original project engineer on the Northern Black Woods, has been appointed District representative for Northway Aircraft, Inc., and will be responsible for business between Northrop Field and the ATSC at Wright Field.

The associated firms of Moore and Stebbins and Stebbins and Grylls, Inc., have established an airport division under the direction of **J. B. Bapst**, formerly director, airport plans and survey services, Civil Aeronautics Administration. The two firms are engineering firms.

* **William C. Speckle, Jr.**, newspaperman and columnist, has been appointed to the publicity department of Northwest Airlines to assist the western regional representative with headquarters in Seattle. He has been on the staff of the Seattle Star and last year was the managing editor of the Washington State Press club.

* The semi-annual roster of the Aviation Writers Association, comprising 110 changes in the data on members, is ready for distribution to approximately 1,800 individuals and commercial newspapers, periodicals, and aviation organizations. It contains the names of 225 regular, military and associate members. This is the fourteenth edition. Copies may be obtained from the executive secretary, P. O. Box 255, Grand Central Annex, New York.

* The Institute of the Aeronautical Sciences has announced release for distribution of the Aeronautical Engineering Catalog, 1943 edition. It is published as a reference guide for aeronautical designers and engineers, containing specifications and engineering data on a wide variety of aircraft products available for post-war airplanes.



AS WESTERN AS

THE Joshua

Springing from the warm, kaleidoscopic desert of the great Southwest, the giant Joshua tree rises massive, squat as dwarf, its gnarled, twisted branches like the tarsi of all travelers and the floors of their canopies.

To the sunshiny and color of America's foremost desert playgrounds, Western Air Lines carries vacationists flying winter's wrath. For Western is the airline to America's wondrous parks and recreation areas—in winter and summer. As the West's own airline, Western has filled the pioneer's role in building up rapidly needed air service for the people of the West. Today, 37 key industrial and agricultural communities in 7 states and Western Canada are served. With delivery of larger, faster planes only a few weeks away, Western needs only the approval of new airports to augment service to many more communities, bring improved air transportation to many others.

WESTERN AIR LINES
AMERICA'S PIONEER AIRLINE

CONTROLLED ATOMS or CONTROLLED LIVES

SINCE August 6th when the first atomic bomb was released over Hiroshima, the American people have been subjected to a continuous barrage of pronouncements on the use and control of atomic energy. Some of this comment has been strident, and much of it conflicting. A considerable portion of it has been of sincere and constructive excellence.

It has not been easy to separate the wise counsel from the merely noisy, and it is small wonder that the minds of many are troubled and confused.

However, the sheer mass of discussion poured into press and newspapers has awakened us all to the gravity of the issue. In terms of any problem on which Americans ever have been called to exercise a judgment—this is it!

Even the dullest now recognizes that atomic weapons have created civilization like the Devil of Desdemona, and understand in some measure how fragile and taut at the hair of political balance that holds it suspended.

From this point on, we need the coolest and most carefully considered judgment that can be brought to bear. Discussions highly charged with emotionalism will but increase the tensions both at home and abroad, and render wholly insoluble a delicately intricate problem.

What Is The Problem?

The major authors of that problem now are coming into focus in understandable terms:

1. The scientists have sped up a new and virtually unlimited source of energy, and the engineers have discovered how to turn it into a military explosive incomparably more powerful than any we have known. We know that energy can also be used to produce heat for mankind's power, and we suspect that the radioactive radiation produced by the process in infinite unimagined quantity may also have medical, industrial, and other constructive applications.

2. Terrible as have been the demonstrations of the atomic bomb thus far, we know that they are as nothing in comparison with its potential destructiveness. The explosive force of individual bombs can be increased tremendously, and means for their effective delivery to predetermined targets in wholesale quantity already stand at hand. The experts tell us that no practicable means of interception can be devised, and that reprisal in kind probably will be the only answer to an enemy attack with atomic weapons.

3. So far as we can see now, even successful retaliation would be at best an answer of hollow effect. Any two nations each having wholesale stock-piles of bombs could accomplish the practical destruction of each other.

Since a first treacherous blow might well constitute an enormous advantage, a nation actuated by a ruthless urge to conquest or revenge might have the best chance of survival. But since the widest possible dispersal of bombs and launching units would be dictated by the strategy of atomic weapons, it is doubtful that one nation could destroy another without itself suffering destruction. On both sides the major centers of population could be wiped out, and the nation of least concentrated industrialization and conservatism would suffer least. However, no one can be sure that the concentrated explosion of as many as 20 thousand atomic bombs would not poison the atmosphere of the world to an extent that would be fatal to great masses of population, not only within the country bombed, but perhaps in the countries which launched them.

4. The problem is further complicated because, as far as we know now, any large-scale commercial use of atomic energy as a power source is more or less intrinsically linked to a potential military use. It is true that, if atomic power becomes economically feasible (which is by no means certain for a long time to come), it would require only low-grade concentrations of fissile material, which would need further elaborate and costly processing before reaching explosive potential. But the process of producing such low-grade concentrations constitutes perhaps two-thirds of the industrial effort required to make effective bombs. It follows, then, that if nations were to expand themselves to produce large quantities of low-grade concentrations for power generation, the effort required to develop large-scale bomb production would be necessarily reduced. Moreover, the maintenance of an effective inspection to police agreements to produce bombs might be far more difficult if atomic energy generators were allowed.

5. In addition to the major problem posed by the use of atomic bombs in international war, any nation which produces or possesses such bombs, or the fissionable materials with which they are loaded, faces still another in the danger of their falling under the control of paranoid elements in its own population.

What Are We Going To Do About It?

We face the hard fact that we have produced a weapon capable of destroying whole nations—perhaps even the whole world. Although we were independently aided in its development by the nationals of other countries, we, together with Great Britain and Canada, now must take the initiative in deciding what shall be done with it. We have only two choices: We can try to keep this weapon as a monopoly of our own, or we can try to place it under broad international control.

Can We Keep It To Ourselves?

If we knew one certain fact about the atomic bomb, it is that it cannot long be held as a monopoly of those nations which produced it.

If Nazi Germany had succeeded in developing the weapon first, it probably would have attempted to achieve world dominion, with atomic destruction as an alternative. Such a choice is latent within our range of choice. It violates every principle for which we stand.

Much nuclear research has been uttered concerning the wisdom of other nations to master the scientific, engineering, and industrial problems involved. It is the virtually unanimous opinion of those who worked on the project that several nations today are fully equipped to produce atomic bombs and to provide the means for launching them. At least one of these nations, Russia, has also access to an ample supply of the necessary raw materials. The only debate is over whether it would take three, or five, or ten years for her to marshal her resources to produce bombs in multiple thousands. Once such an atomic race were on, we have no reason to believe that Russia might not divert more resources to the task that we ourselves should be willing to put into it.

Additional evidence is added to the way we might attempt to cope with the problem of living in a world which mutually condemns us to hostile action against each other, with no hope of peaceful cooperation on basic rules. We have lost all of our sense of national and even of military independence. No one has yet seriously rechecked the difficulty or the cost of following such a road of despair. Still less has anyone appraised the neurotic effect upon man's mind of living by any such preposterous formula, under continuously mounting tension day after day, year after year.

Certainly, if we could find no way to prevent the competitive production of atomic weapons, we should be driven at least to the selective dispersion of our bomb-launching facilities, of certain key industrial establishments, and of our centers of government and governing personnel. We should be forced, also, to change our traditional requirement that only Congress can commit us to active war. We should be forced to organize ourselves as a police or military state, with our scientists regimented and marshaled, with all of us under constant surveillance against the smuggling and planting of firearms, and constantly alerted against attack through the air.

Before we submit ourselves to any such intolerable procedure, we should be made not to explore all possible sources for making it unnecessary.

The Only Feasible Alternative Is Effective International Control

This cardinal principle has been recognized in the statement of November 19th, issued jointly by President Truman, and Prime Ministers Attlee and King. Their statement frankly concedes that against atomic weapons there can be no adequate military defense, that no nation can possess a monopoly of such weapons, that responsibility for eliminating atomic energy as an instrument of war and for devising safeguards over its use for the

advancement of science and other peaceful and humanitarian ends rests upon the civilized nations of the world.

They propose that a commission be set up at once under the United Nations Organization to make recommendations: (a) for extending between all nations the exchange of basic scientific information for peaceful ends, (b) for control of atomic energy to the extent necessary to ensure its use only for peaceful purposes, (c) for the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction, and (d) for effective safeguards by way of inspection and other means to protect carrying states against the hazards of violation and evasion.

Already actions are leveled at the wording of the statement, at alleged omission, at the wisdom of choosing the United Nations Organization as the medium through which to seek agreement in view of the weakness of the USSR Charter.

None of these points should be crucially important. What matters is that an aviation has been made in good faith for the nations of the world to meet and decide upon means for securing the elimination of weapons, the existence of which no one can afford to tolerate.

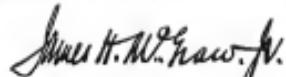
The decision cannot be other than international; it will require the best thought of the best brains the world can muster. The smaller nations have an equal stake with the large, and from them may well come the most fruitful suggestions. But Russia now holds the key to the success or failure of our proposal. If she accepts our invitation, no other nation will refuse.

Alternatively, there will be an international agreement once passed by atomic weapons. It will mean an end of free science, a severe policing and regulation of international travel and trade, and innumerable restrictions upon those individual freedoms which we have just fought so desperately to preserve. This is the dismal prospect if we fail to arrive at a genuinely international accord on the control of atomic energy. But even this interval would probably last only for an unwise period until sufficient sterilized ground is found for the propagation of extinction.

The only permanent solution lies in finding means to eliminate war itself. That we cannot hope to achieve overnight, but we can, and do hope that the nations will now agree to eliminate atomic weapons and their radioactive by-products as instruments of war.

If they do that, we can move forward more surely to the constructive development of the invaluably valuable resources that science has newly opened to our use. And, we can hope also for a progressive improvement in international understanding.

Unless the nations can reach agreement on this paramount issue of atomic energy, it is difficult to conceive of any vital issue on which they might agree.



President, McGraw-Hill Publishing Co., Inc.



SPECIAL AIR SERVICES

CHARTER

NON-SCHEDULED

INTRASTATE

CAB Restriction Order Indicated As Non-Scheduled Hearing Closes

Board expected to follow examiner's recommendations on limitations; operators present their case in unprecedented strength and harmony.

The nation's aircraft service operators in unprecedented strength and harmony have presented their case to the Civil Aeronautics Board for continuation of the present exemption of non-scheduled air services from economic provisions of the Civil Aeronautics Act. But there is a strong indication that the board will follow most major recommendations of the examiner to draw up a more restrictive exemption order which will set up new definitions, set a statutory limit on certain trip frequencies, and require operators to register, and meet safety requirements, file periodic reports and maintain minimum standards of insurance.

The board seeks a skeleton outline of economic regulations which can be filed out as the non-scheduled industry itself takes form. Any provisions considered basic but found to be restricting the business of the industry would be included in the basis of an exemption for that operator for a definite duration if he was deemed not in cooperation with scheduled carriers.

AFA Approval—It is significant that the Air Transport Association, whose members most fear future competition of charter or non-scheduled operators, approved virtually all of the examiner's suggestions.

There appears a strong possibility that the examiner's recommendations for classifying operators by frequency of service will be followed. Fixed base carriers would be limited to trips to or from their bases, except for occasional flights between other points, and would not be permitted to make trips longer than two points served by schedules air carriers.

No Answer—CAB Chairman Eugene Dugan and members Branch and Lee reiterated in their questioning

of non-scheduled spokesmen that the act makes the board responsible to Congress for a sound transportation system, with just regulation of all air carriers. They clearly indicated their belief that some economic control is essential and that a few guides "to help define the rules of the game" will be to the public interest and of benefit to legitimate operators in protecting them from irresponsible competition and in giving them an official status before the public which they do not now possess.

Regardless of overwhelming testimony of non-scheduled aviation spokesmen against any change in the present exemption order, it was obvious the board did not receive from the oral argument any answers to its fundamental question of definition of non-scheduled operators, which were more elusive to it than the examiner's and

Council's Comment

Following are public comment's recommendations to CAB on the question of regulation of non-scheduled air services:

1. That the present exemption order be expanded.

2. That a new method of exception of non-scheduled air services be adopted; (a) establishment of a classification such as "non-certified" so carriers in this category, who are a carry, would be able to file a simple notice, certain periodic information reports and forwarded adequate liability insurance satisfactory to the Board. Carriers of passengers and property should be treated the same with the possible exception of the liability insurance requirement of one or two planes in the aircraft field; (b) The early operating restriction for non-certified air carriers would be that the carrier could not operate over 10 routes longer than 1000 miles up to 500 miles and for round trips up to 1000 miles.

The ATA's recommendations

Board Attitude—Mr. Branch at one time reversed the board's thinking when he asked an industry spokesman what objection there could be to changing the present exemption of non-scheduled regulation in such a degree with few restrictions, building up a regulatory system from time to time as an industry pattern de-



UNUSUAL FREIGHT FLIGHT

Juicing up a static air show is reported by Air Cargo Transport, Inc., truck operators out of recently reopened Newark, N. J. Airport. Each shipment of 200 special sheets to Monrovia International Airport, Rep. of Gileana, was among unusual jobs handled by the pioneer non-scheduled cargo firm. Above, Adams Planner, Herman Welch Co. official, and ACT Capt. Tom Dessa, former R&P pilot, a special search for New Orleans Mayor Robert S. Morris. It was delivered at the end of the flight which was said to have been the first commercial cargo delivery into the new field which is to be opened next month.

velops Under such a plan the board would schedule hearings and call in interested parties whenever it felt amendments or regulations were in order.

Competition—Charles operators cannot possibly compete with the airlines in the foreseeable future. Joseph Giende, of E. W. Wiggin, Boston, told the Board Representative of the Aeronautical Training Society, he argued that any new definitions be considered from a standpoint of encouraging rather than restricting non-scheduled operations. Arnold Knauth discussed the legal aspects for AT&T.

William Anderson, of Pennsylvania Aviators' Committee, opposed any changes in the present exemption order.

Board's Tasks—William A. M. Borden, Assistant Secretary of Commerce for Air, in urging the Board to take no action for two to five years, said any regulation would tend to throttle the industry at the time it needs freedom to serve thousands of new passengers and short returning air force veterans some of whom will go back. He expressed strong opposition to restricting operations to their bases and in number of flights.

Bruce Turner, President of National Aviation Trades Assn., said restrictions are unnecessary at this early stage of the industry when the returning veterans should be given encouragement to obtain jobs. In no other country is there as fine a non-scheduled aviation industry, yet despite its aid in building the world's greatest air force it grew without subsidy to any of its component enterprises.

Richard Butcher, representing Pennsylvania Aviation Trades Association, said as a plenum distributor and operator he has received about 600 letters from veterans who hope to enter the field. He urged postponement of regulation, assuring the Board that while hazardous conditions may prevail temporarily there now is no pattern to indicate the type of regulation needed.

William McCuschen, general counsel for National Aeronautic Association, urged that regulations be confined to fair safety provisions to give free play to the economic laws of supply and demand. Arthur Bauman, chairman of the Non-scheduled Flying Advisory Committee of CAA, said his association concurred with that of Mr. Borden "in no recommendations at this time."

Art's Purpose—Gerald P. O'Grady, representing the New England Aviation Trades Association and the Civil Aeronautics Act was enacted for the benefit of the public, not to favor any single class of aviation. He sees no competition with the airlines.

He did not object to registration or simple periodic reports, but forecast that limiting operations bases will raise costs, deprive the public of maximum service and lead to artifices such as mobile bases or establishment of temporary bases for short periods to take advantage of business opportunities.

UPMA Stand—James W. Bischel, counsel for United Pilots & Mechanics Association, represented 86 firms, operators

and individuals who had expressed their views. UPMA represents about 800 operators in its membership. Bischel opposed regulation at this time. He also warned the Board that since its jurisdiction was mainly over interstate operations, any decision it made to limit frequency of charter flights will penalize an operator near a state line or based in a small state.

Suggestions of that non-scheduled flying be centralized and regulated "come with poor grace from a group whose losses have been unassisted by the federal treasury and who have had a major portion of their profits exempted from excess profits tax while all other forms of business, including those which they propose to regulate, have been taxed regardless of the source of income and have received no subsidies whatever," he asserted.

Attack Argument—Bischel and a frequent argument for regulation is to prevent high mortality among operators.

Statistics show that the mortality rate for grocery stores is the highest of any type of business, "but no one would presume that we limit the number of grocery stores, or the trade area they should serve simply because the mortality rate is high."

While it is true that an operator would deliberately wish to go broke, if he is willing to offer service to the public for less than he can afford to provide it, the public will benefit through cheaper service. There will always be another operator waiting to take his place until the industry is freed by regulation, as in the case of the motor transport industry."

Example Asked—Albert F. Bell, appearing for Harry Playground's U.S. Airlines, which is starting non-scheduled air cargo service between Florida and New York, urged the Board to set up a category of air cargo carriers by general exemption order so that the companies may operate as commercial carriers.

Caves Lear of Globe Freight Airline, Inc., urged the Board to grant certificates more rapidly to operators without experience.

Others who appeared were Earl Sherrill for American Way Dada, Carter Cooper for Greensboro-High Point Airport Authority, Hubert Cock, of Herman Roddell of Trans-Marine Airlines, and Vernon Kishimoto of Air Cargo Transport Corp.

Text of Non-Scheduled Exemption Order

Following is the text of Section 301 of the Economic Purchasing Bill, the Civil Aeronautics Board, adopted Oct. 4, 1945, and effective as of Dec. 1, 1945, in accordance with the terms of its present form. See 7, 1945. The exemption order is intended to permit the operation of non-scheduled air carriers under the authority of the Civil Aeronautics Board.

"(1) Until the Authority shall adopt further rules, regulations or orders with respect to such matter, any person who is not engaged in the carrying on of a non-scheduled operation shall be exempt from the provisions of section 301 of the Civil Aeronautics Act of 1938 and the provisions of Title IV of the Civil Aeronautics Act of 1938, except an order or rule which is specifically required by the Civil Aeronautics Act of 1938 or by regulation. Within the meaning of this regulation any corporation which is engaged in the carrying on of a non-scheduled operation if the civil air carrier does not hold out to the public by subscription prospectus or otherwise that it will operate one or more airplanes be-



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TRANSPORT

Land Likely To Be ATA Head; Ramspeck Made Vice-President

Marine Commission chairman's resignation reliably reported already at White House; Georgia Representative will be organization's executive director after leaving Congress Dec. 31.

By MERLIN MICHEL

Selection of Rep. Robert Ramspeck as executive vice-president of Air Transport Association were made last week at roated speculation as to the organization's presidency, now vacant, with Chairman Ernest S. Land of the Maritime Commission the most likely choice.

The retired vice admiral and he had not resigned his current position, had signed a contract that reliable reports were he has withdrawn from public life to take the ATA post already had been submitted to the White House, and there was further good reason to believe that announcement of his election to head the Association will come towards the end of this month.

Changes Due—Definitely in prospect was some kind of ATA reorganization, probably shortly after the first of the year. It seemed likely that Land would emerge as president, with two

vice-presidents working with him. One of these, of course, would be Ramspeck. C. Bobbi Morris, Pennsylvania-Central president, now is ATA vice-president.

Ramspeck, who is in any event will be the organization's chief administrative officer, is a Georgia Democrat. He will take the new job Jan. 1, replacing his seat in Congress Dec. 31, although his election will go to Congress chief executive earlier in order that an election may be called to provide a successor. The Congressman attended both meetings of ATA's Board of Directors last week.

Surface Carrier—Ernest Marneck is a member of the Merchant Marine and Fisheries Committee of the House, which is on record in favor of steamship company participation in air commerce, and Admiral Land has been a strong advocate of such a step, the selection of both key posts

in ATA would be of more than usual interest to an industry that has resisted strongly any encroachment by surface carriers.

It should be pointed out, however, that Ramspeck's status as chairman of the House Civil Service Committee has kept him so busy that he has rarely been in attendance at Merchant Marine. Nor does he recall being on record on the steamship issue. The report in which the committee recommended participation came from the committee as a group, and Ramspeck does not recall attending the meeting which resulted in the report (AVIATION News, Dec. 4, 1944).

Compromise—Some observers feel, on the other hand, that a compromise between the airlines and the steamship companies may be in the offing. This point to the fact that Land, highly regarded in the shipping industry and for his administrative ability, is strongly backed for ATA's top spot by C. R. Smith, chairman of the board of American Airlines and a strong advocate of unified effort.

With air transport expanding rapidly internationally, the air carriers in that field will need ticketing agencies throughout the world. Such agencies have been established by the steamship companies. Furthermore, the latter are said to be preparing for a drive soon after the first of the year for amending legislation that will allow them the air operation they hitherto have been denied by Civil Aeronautics Board interpretation of the Civil Aeronautics Act.

Board Changes

Two changes in the Board of Directors of the Air Transport Association were made last week. W. A. Patterson, president of United Air Lines, was reelected after several months' absence from the directorate. G. E. Woods, of Delta Air Lines, vice-president, was elected to the board.

Members who continue into the new year are C. H. Smith of American, Capt. Eddie Rockemacher of Eastern, T. B. Wilson of Pan Am, and Bedford Morris of TWA, and Captain John Northcutt. Patterson succeeds Paul Collins of Northwest, and Woods replaces T. E. Bestoff of Braniff Airways.

Question—Here the question immediately arises as to what distinction can be drawn then to keep the railroads from similar participation, also opposed by the airlines.

Ramspeck's knowledge of legislative processes in Congress will be of value in his new job. In addition, he is more familiar than any other man in Congress, some of his friends say, with personnel in government departments. Particularly is this true in the Post Office Department. He was secretary of the Chamber of Commerce in his home town of Decatur, Ga., at the edge of Atlanta.

Left Congress—A Washington newspaper described his resignation as a "show to Congress as he was widely recognized as its leading authority on Federal personnel and related matters."

He was elected to Congress in 1938 and has been reelected at each succeeding election. Among important measures he has sponsored into law is the Ramspeck-O'Mahoney act of 1948, which brought first, second and third class postmasterage rate the Civil Service system. He is a former prosecuting attorney in Georgia and has been a lawyer in Washington worked in the House office and as secretary to a member of Congress before he returned to his home to run for Congress in Georgia's Fifth district.



DC-4 MOCKUP AT TCA

Trans-Canada Airlines pilots are working with this DC-4 mockup at TCA headquarters at Winooski in preparation for use of this type of craft overseas before the end of next year. The aircraft are to be built at Montreal at government-owned Canadian, Ltd., along with an RCAF transport version of the C-47.

and Pan American International routes.

Commitments for rental of the four new hangars to be constructed have already been obtained, Law reported, from United, Colonial, TWA, and American.

Funds Cut—Law disclosed that

Washington National Funds Approved

A \$3,958,000 appropriation for the Washington National Airport, approved by the House Appropriations Committee last week, will implement the first part of a \$16,000,000 post-war expansion program planned by Harvey Lane, port administrator.

The appropriation appeared last week in the first deficiency appropriation bill will provide for extension to the south end of the terminal building, an estimated cost of \$665,000; four additional hangars, \$3,822,000; land for, and planning of, a \$750,000 access road to the airport, \$300,000; border house expenses, \$200,000.

More Space—The terminal building extension is being built to give two domestic operators—United Airlines and TWA—more adequate space, and provide accommodations for three new airline operations—by Colonial, and by TWA

An underestimate by the Post Office Department of the volume of domestic airmail during the 1945 fiscal year—which ended July 31—estimates a deficiency appropriation of \$905,000. The Post Office Department estimates that the division of airmail service, established before House Appropriations Committee last week, in connection with the Post deficiency appropriation bill.

In drawing up its 1946 fiscal year budget, the Post Office calculated a 1945 deficiency amount of \$665,000, based on an unanticipated volume of domestic airmail which was 35 percent over the 1944 fiscal year volume. It has now developed, Burgess said, that the 1945 fiscal year volume of domestic airmail was approximately 45 percent over the previous year.

Law pointed out that all of the expansions planned for the airport will bring in substantial increases

the Budget Bureau clipped \$700,000 for a fifth hangar from appropriations requests. Although he pointed out to the House committee that the fifth hangar would pay for itself over a period of years, the man was not reinstated in the appropriations bill.

The \$16,000,000 post-war development plan put forward by Law is the House Appropriations Committee would convert the airport into a self-sufficient town.

Reserve—Included in Law's plan for future developments are a transportation hotel—apartments to house permanent employees at the airport, and supply overnight accommodations for air travellers; a garage with complete repair facilities; a warehouse for use of the airplane.

A shopping center, to accommodate, permanently, employees of the airport unable to get to downtown Washington during shopping hours,

An exhibition building, illustrating developments in aircraft accessories, with showrooms "which could be rented at fairly high prices." Some small planes could also be exhibited.

Law pointed out that all of the expansions planned for the airport will bring in substantial increases



WHERE THE ARMY OVERHAULS C-47S:

These overhead docks at Morris Field, near West Palm Beach, Fla., are the 900-ft destination for the Army's C-47s. Each dock has its own power supply and is equipped for night work. Capacity is 20 planes. The planes fly in with veterans destined for discharge, and exit with Air Transport Command equipment.

CAA Would Hold Advances In Electronics For Future Use

Policy calls for present instrument landing system to be pushed to full completion first, keeping new methods in reserve; ATA, Arac and most airlines agree.

By BLAINE STUBBLEFIELD

Basic advances in electronic navigation facilities will be held in reserve for the future, if CAA's go-ahead policy can be carried out, while the present instrument landing system is pushed to completion.

In just over a year, so many improved instrument approach systems were advocated by different sources that the actual adoption and development of one system could not be started until the President finally called for a decision.

► **New Dispute—Slow,** the temptation is strong to new developments is at hand again, with government and private research progressing rapidly in radio and other applications of radio to air navigation, but an apparent majority of persons concerned are determined not to start it.

CAA, ATA, Arac, and most airlines feel that it will be better to go ahead with the partly completed system which is judged to be good, than to change and spend more years waiting for something better. Meanwhile, of course, all their research facilities are working on fundamental improvements

ground facilities in service.

How many of these stations will require more than one instrument-equipped runway will depend upon interim progress with varied landing cones, staggered-pitch breaking propellers, and other factors. During minimum visibility, the wind is below 5 mph, more than half the time, and most higher winds during the other half are uniform in direction. There is presently no plan to use portable ground stations, which would make all runways available, because they get out of adjustment easily.

► **Other Equipment—**The airlines are fully equipped with 75-megacycle fan marker receivers. All except recently-acquired airplanes are equipped with R/C-183 localizer receivers, purchased during the war. This receiver has been certified by CAA. Only ten Army-Navy ARN-5A glide path receivers are in hand as yet. One of these is at United Air Lines laboratory, where testing is completed and certification is expected at once. Procurement from military surplus will not be substantial until New Year.

Both glide and localizer receivers require modifications for civilian use. Neither was exactly what the manufacturer intended, and some production will be accomplished in the U.S. Some surplus glide paths delivered to the airlines are equipped with both receivers, but no advantage is gained because they have to be taken out and modified. The airline airborne approach instrumentation—localizer, glide, marker, and directional receiver—is designated SCB-81.

► **Modifications—**The airlines also have 500 communications circuit receivers now going through a modification center in Washington. These are the ANC-1 Army-Navy 30-watt type, already certified, and the 12-24-watt combination, which will soon be approved. These 500 units were obtained by Army direct from the Navy.

Total of 32 CAA ILS ground stations (Aviation News, July 24, 1944) are now programmed. Twelve CAA stations are working, 10 are being installed; 45 are in CAA's 1946 plan, and funds for 36 in 1947 have been budgeted. In addition, 27 have been completed for the Army, plus five in process. Navy is getting two, and is incomplete. How many of the instrument-equipped Army fields will become available to commercial

flying can not be determined as yet.

► **Approach Aids—**Projected installation of 30 direction-finding stations at 12 major airports by CAA is now nearly completed, to aid in instrument approach in the consumer's interests. Most active planes have direction receivers. The transmitters to be used are Army type 84s.

It is possible that direction finding instrumentation will justify permanent and expanding installation. Many pilots find it an invaluable supplement to local range facilities.

It consists in most cases of two ground transmitters on which the pilot uses his direction compass to line up with the runway, or to check his location. Line-up runway lights, with the direction finder, are regarded by many sources as excellent approach facility in themselves for most landings.

Improved Controls Outlined By Gilbert

Developments in store for air traffic control in the immediate and more distant future have been outlined by Glen A. Gilbert, chief of Civil Aerodynamics Administration's Air Traffic Control Division.

Among more immediate improvements contemplated:

► **Concentric VHF ranges** with visual indication of desired track as basic means for navigating over land areas, such as con-

C-54-B Allocations

Thirty-one Douglas C-54-B's were divided among domestic and foreign airlines in the first allocation of surplus transport aircraft by Stephen Property Administration, announced yesterday.

Twenty-four went to U.S. lines, as follows: five each to Pan American and Eastern; four each to United, American and TWA; two to Western, and one each to United, American and China. Sixty-eight Two of the 31 allocated to foreign lines went to Panair do Brasil, and one each to Aerolineas de Colombia and Compagnie Mexicana de Aviacion.

Domestic U.S., where traffic is highly concentrated:

► Long range crossings over water or thinly-populated land areas accomplished chiefly by medium flights, using high-power directional equipment.

► Use of basic navigation aid at airports, of instrument landing system with runway locator and glide path.

► Concentration by voice, where language permits, with radiotelegraph in suitable codes used in many cases.

► Application of radar service in control towers.

► **Objectives—**Among ultimate objectives are:

► Elimination of the voice as a me-

dium of communication.

► Removal of human element through use of automatic devices.

► Establishment of facilities and development of procedures to permit traffic flow during instrument flight in same volume and frequency possible during contact flight.

► **Methods—**Various methods of accomplishing these objectives,internationally as well as domestically, are under consideration.

They involve use of a collision warning device known as a "vertical separation indicator", automatic communication equipment on the ground for exchange of flight data between centers and between centers and towers; and automatic transmission of traffic control instructions directly to the cockpit, possibly by means of an indicator utilizing a system of lights or by several revolving drums electrically activated to form desired codes.

Canadian Data Issued

The Canadian Air Transport Board has issued a directive for the filing of schedules of air carriers licensed to operate commercial scheduled flights.

The directive contains full data on how to file schedules, provision for operation of extra flights or additions of sections to regular flights when heavy traffic requires, the printing of schedules, and the transmitting of information to eastbound airlines and the post office department.



FLYING CARPETS:

Three rolls of broadloom carpet from a New York mill are shown being stowed for flight by Air Transport Command C-46 from La Guardia Field to Harmon Field, Newfoundland, where they were assigned to the Non-Commissioned Officers club. The load was described as the first large shipment of carpet by air to a foreign country.



DISCUSS AIR FREIGHT POSSIBILITIES:

Among "air freight experts" at a recent Pacific Coast air freight forum sponsored by the Oakland, Calif., Chamber of Commerce Aviation Committee were: left to right, seated, Bill De Weese, San Francisco district traffic manager, American Airlines; Everett C. Michie, western region cargo traffic manager, American Airlines; Charles Greene, cargo division, TWA; and Ed Smith, traffic division of United of Oakland. Standing—Mitchell Corwell, cargo division, TWA; J. F. Hause, committee chairman, and Carl Haithcoats, cargo division, Pan American. West Coast grocers, shippers, manufacturers and county and state agricultural authorities also attended.



Ordered by Pan American: Picture shows how the Boeing Stratocruiser will appear with Pan American Airways markings. Contract whereby PAA will purchase 26 of the big planes at a cost over \$25,000,000 was announced last week. The C-97 Army cargo version of the plane, flew from Seattle to Washington last January in 5 hrs., 3 min. and 35 seconds, of a record average speed of 383 mph.

Airlines Start Carrying GI's Across Country

Will handle 665 men each day, less than had been anticipated when service was ordered.

Five flights originating flights on the West Coast, and four others with which they connect, today begin the task of carrying out an GDU order requisitioning 665 military men 10 percent of the airline seating space available between four West Coast cities and a down on the East Coast.

Number of troops carried will be 665 a day instead of the 600 the Office of Defense Transportation estimated or the 1,000 the Army Transportation Corps hoped it would be below the 2,000 a month Air Transport Association predicted. The troopers will leave the West Coast on 88 flights a day.

Organizations— Participating airlines are American, Northwest, TWA, United and Western, the originating carriers, and Delta, Eastern, Northeast and PCA as the receiving cities. National was in on the conference mapping details of the plan, but did not appear on the all-inclusive chart.

These show that of the originating airlines, American will start 17 of the flights, United 15, TWA 12, Northwest seven and Western two. The number of seats assigned the military each day by the originating carriers American, 22; United, 100; TWA, 158; Northwest, 84; and Western, 34. American and TWA are allocating 18 a flight, the others 12.

Boutiques— Routines are as follows:

For American, O'Hare will originate 10 flights to Boston, the remaining daily to Chicago via O'Hare. The New York flight will originate from Newark and fly direct to America's at Chicago. To Washington, four flights daily via Chicago and three via Newark. PCA will have total trips 12 passengers per day, 150.

From San Diego, American will originate 10 flights to San Fran, via Burbank, San Jose, Sacramento, meeting with Delta at Fort Worth, to connect with PCA at Washington. From Seattle, American will originate 10 flights to Portland, via Spokane, and then to Seattle, via Anchorage, connecting with PCA at Washington. Total trips 12.

Cosair expects the Martin 202 to take training time between Washington and Ottawa less than two hours, compared with the present 4½ hr. by air and 20 by surface travel. James also announced that 16 converted DC-3's will be placed in service by his company starting next month, to provide a "substantial operating fleet" until the 262's are delivered.

Non-Stop N.Y.-London Service Seen As PAA Orders 20 C-97's

Delivery of 80-passenger Stratocruisers to begin next November. Boeing also negotiating for similar orders from other U.S. and foreign airlines.

Prelate to possible New York-London non-stop service is a \$33,000,000 contract placed last week by Pan American Airways for a fleet of 30 Boeing Stratocruisers, 80-passenger commercial version of the Army C-97. Delivery is to begin in November next year.

The contract was signed by President William M. Allen, Boeing, and Vice President Franklin Ginchell of Pan American. Boeing officials said at a press conference after the announcement that they are negotiating for further Stratocruiser sales with TWA, American, Northwest, and some foreign airlines.

Colonial Purchase—In another plane purchase deal announced last week, Colonial Airlines contracted for 10 Martin 262's in cost about \$4,000,000. Deliveries will begin in June, 1947, and end early in 1948. The contract was signed by Sigurdur Jasa, president of Colonial, and Peyton MacKenzie, representing the Glenn L. Martin Co.

The Stratocruiser order is the first commercial contract announced for this plane. Colonial is the third line to disclose purchase of the 262, and brings total commitments for this 270-mph, two-engine transport to 165. TWA and Eastern have ordered 35 and

88, respectively.

Fair City—The Boeing plane, powered by four Pratt & Whitney 3,300-hp engines, has a 369-mile cruising speed, 4,300-mile maximum range and will carry a maximum payload of 20 tons. It weighs 66,000 lbs. loaded and has two decks. It is able to accommodate 80 air-mail passengers, Colonial said, and may result in a lower fare from New York to London than PAA's present \$725.

Last January a C-97 Army cargo version of the Stratocruiser, set a transcontinental speed record of 383 mph.

Pan American says the ship could provide New York-London service in 1½ hr. and coast-to-coast service in 8 hrs 35 min. A transoceanic route is its application for several domestic routes on file with Civil Aeronautics Board.

Cosair expects the Martin 202 to take training time between Washington and Ottawa less than two hours, compared with the present 4½ hr. by air and 20 by surface travel. James also announced that 16 converted DC-3's will be placed in service by his company starting next month, to provide a "substantial operating fleet" until the 262's are delivered.

daily on United, via Chicago. To Baltimore, via Newark, then on Northeast connecting with PCA on Chicago. Farther on, via Newark, were two flights, one with Delta at Chicago, the other with Delta or Chicago. To Nordic, one on Northwest, one on Northwest, via Newark, via Chicago. Total 111½ hr., passengers, 312.

From Los Angeles, TWA, American and Northwest, via Portland and Spokane, five flights daily, via San Francisco, one direct, one connecting with Northwest, via New York, via Newark, via Boston, via Atlanta, via Memphis, via Cincinnati, via TWA, one flight daily, via Newark, via Atlanta, via Memphis, via Chicago, via Newark, via Chicago, connecting with PCA at Washington. Total 111½ hr., passengers, 312.

PICAO Subcommittee Outlines World-Wide Meteorology Plan

Final report covers maps for development of closely-integrated observation systems applied to global air transportation needs, Chicago, October 22.

The meteorological subcommittee of the Provisional International Civil Aviation Organization (PICAO) in Montreal last week produced its final report of the first session, outlining a general plan for development of a closely-integrated, world-wide system of weather observation and its direction to the needs of international air transport.

Included in results of the committee's 18 meetings are a comprehensive set of international standards and recommended practices and a series of 28 recommendations for continuing study and improvement of meteorological services. The standards are fundamentally the same as those drawn up at last year's Chicago conference on international aviation.

Authorities— PICAO's Bureau Central also expanded the jurisdiction of its various subcommittees to include consideration of "all impediments to international air transport"—specifically customs procedures and manifests, sanitary, public health or quarantine.

The Bureau expects to be flying well over 1,000,000 miles a month by next June, part of it over the Denver-Los Angeles route awarded it in November, 1943. Western officials say the company will be ready to operate the route as soon as Civil Aeronautics Administration has airway facilities in operation, probably by Jan. 15, and has approved the airway for instrument flight.

TWA Sued for \$400,000

TWA faces four suits for a total of \$400,000 damages as aftermath of the crash of a transport near Lockheed's Air Terminal Dec. 1, 1944. The death of 100, including 34 Muller, Mrs. Margaret S. Muller, her husband, \$125,000. Gerald F. Smith, an injured passenger is suing for the sum amount, while two others injured, Lassie Totterbroad and John W. Romeo, are suing for \$20,000 each.



FIRST CONSTELLATION:

The long-expected of Transoceanic Air's first Lockheed Constellation, recently provided surface for the issuing of a commemorative envelope, scroll under Lockheed trade delivery of the airplane at Las Vegas, Nev. Signing, at Las Vegas' McCarran Field, are Sen. Patrick McCarran, Senator, Lockheed vice-president, and Lee Tafau, TWA vice-president.

Recommendations— In its recommendations on meteorological services the meteorological subcommittee suggested:

- Standardization of the adequacy of existing facilities, personnel qualifications, means for exchanging information, new requirements, changes made by "non-benefiting" states for data, division of costs, unification of graphs, charts and other documents and standardization of units.

The Budget Bureau and Aviation—II

LAST week's discussion on this page of the Budget Bureau and its importance to aviation stressed the tremendous power of the Bureau over all facets of aviation, the impractical, unrealistic and arbitrary nature of many of its decisions on aviation budget items and aviation legislation, and the plea for an end to the unhealthy and unnecessary awe in which the public, aviation industries and Congress have held Budget Bureau action.

With the end of the war and return of full control of many budget items from the military services to the Bureau, aviation must expect repeated attempts by the Budget Bureau to extend its control even further.

These comments are not made in denunciation of a hard working staff at the Budget Bureau, but they are made in an attempt to convince us that we must scrutinize the Bureau as critically, as we do our friends at CAA, CAB, State, Commerce, Army, Navy, NACA, and Congress.

We must remember that the Budget Bureau makes many decisions and interpretations, necessarily without consulting the President, and that, therefore, all Budget action should not be interpreted as infallible or as having come direct from the President. A political scientist would reject these as a basis for action, but a resident of Washington will accept it as realistic advice.

One agency, which must remain unnamed, had a vital project which the Budget Bureau disapproved. An appeal to the top Budget Bureau authorities also failed, and the agency was thus unable to send its request to Congress. One of the agency heads finally went to the President, explained the project and the history of the case, and promptly received a memorandum to the Budget Bureau ordering approval of any budget the agency deemed necessary.

We must remember that the Budget Bureau is a small agency. It cannot possibly know everything about all things. Certainly, it cannot be an authority in aviation. It has no aviation section or unit or, as far as can be learned, even a single full-time specialist in aviation. It does maintain a continuing study in transportation, in which aviation still is considered as a luxury means of transport, and subsidiary to older modes. Its staff is quoted as favoring the placement of aviation regulation in some single transportation agency such as the ICC or a new consolidated

body. It is obvious that such action would result in control of not only the air transport industry but perhaps even the non-scheduled operators and private flying by men who are essentially railroad minded. The threat of a single transportation agency is very real.

With the end of the war, the day is over when the Budget Bureau approves automatically all military requests. Yet we seem convinced, as a nation, that we must never again be unprepared for war. Furthermore, as the emphasis returns to commercial aviation we must expect to see more and more restrictions attempted by the Budget Bureau. By consistent lack of vision and a negative policy of cost-cutting, it can become the No. 1 enemy of an expanded post-war commercial and military aviation demanded by the people. It is lagging far behind public opinion, stressing theories which cannot, in themselves, be criticized, but which are depressing aviation because they are not bound up with realistic appraisal of today's rapidly moving developments and what they will mean tomorrow.

These editorials are not arguments for padded payrolls or pork barrel legislation. But it does seem that too often the Budget is being used, as far as aviation is concerned, more to save money than to spend wisely. Character of public expenditure changes greatly during a country's development. The public demands from its federal government maximum benefit from every new service which attains utility and makes possible a better life. Even the Budget Bureau's personnel will concede that economy and efficiency are not synonymous. Merit, retrenchment or regarding increases in budget, without consideration for the value of the return, never assure better public service, or security.

We have still another reason to demand that Congress, our elected representatives, act independently of the Budget Bureau in aviation matters whenever necessary. But by the law of the land aviation is not merely another activity to be regulated. For our Civil Aeronautics Act is the only law in transportation which orders the Civil Aeronautics Administration and the Civil Aeronautics Board not only to regulate, but to foster, encourage, and develop.

This unique dictum we should never forget, nor allow Congress itself or others to forget.

Roscoe H. Wood



A NATION ON WHEELS depends markedly on Borg-Warner. Here James Stevens paints his impression of the Borg & Dole plant in Chicago, the world's largest maker of automobile clutches.

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